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5 <120> Assay for bipolar affective disorder

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	Asp Ala Asp Ile Gly Thr Asn Gly Glu Phe Tyr Tyr Ser Phe Lys Asp	
	175 180 185 190	
15	cga aca gat atg ttt gct att cac cca acc agt ggt gtg ata gtg tta	804
	Arg Thr Asp Met Phe Ala Ile His Pro Thr Ser Gly Val Ile Val Leu	
	195 200 205	
20	act ggt aga ctt gat tac cta gag acc aag ctc tat gag atg gaa atc	852
	Thr Gly Arg Leu Asp Tyr Leu Glu Thr Lys Leu Tyr Glu Met Glu Ile	
	210 215 220	
	ctc gct gcg gac cgt ggc atg aag ttg tat ggg agc agt ggc atc agc	900
	Leu Ala Ala Asp Arg Gly Met Lys Leu Tyr Gly Ser Ser Gly Ile Ser	
	225 230 235	
25	agc atg gcc aag cta acg gtg cac atc gaa cag gcc aat gaa tgt gct	948
	Ser Met Ala Lys Leu Thr Val His Ile Glu Gln Ala Asn Glu Cys Ala	
	240 245 250	
30	ccg gtg ata aca gca gtg aca ttg tca cca tca gaa ctg gac agg gac	996
	Pro Val Ile Thr Ala Val Thr Leu Ser Pro Ser Glu Leu Asp Arg Asp	
	255 260 265 270	
35	cca gca tat gca att gtg aca gtg gat gac tgc gat cag ggt gcc aat	1044
	Pro Ala Tyr Ala Ile Val Thr Val Asp Asp Cys Asp Gln Gly Ala Asn	
	275 280 285	
40	ggt gac ata gca tct tta agc atc gtg gca ggt gac ctt ctc cag cag	1092
	Gly Asp Ile Ala Ser Leu Ser Ile Val Ala Gly Asp Leu Leu Gln Gln	
	290 295 300	
	ttt aga aca gtg agg tcc ttt cca ggg agt aag gag tat' aaa gtc aaa	1140
	Phe Arg Thr Val Arg Ser Phe Pro Gly Ser Lys Glu Tyr Lys Val Lys	
	305 310 315	
45	gcc atc ggt gac att gat tgg gac agt cat cct ttc ggc tac aat ctc	1188
	Ala Ile Gly Asp Ile Asp Trp Asp Ser His Pro Phe Gly Tyr Asn Leu	
	320 325 330	
50	aca cta cag gct aaa gat aaa gga act ccg ccc cag ttc tct tct gtt	1236
	Thr Leu Gln Ala Lys Asp Lys Gly Thr Pro Pro Gln Phe Ser Ser Val	
	335 340 345 350	
55	aaa gtc att cac gtg act tct cca cag ttc aaa gcc ggg cca gtc aag	1284
	Lys Val Ile His Val Thr Ser Pro Gln Phe Lys Ala Gly Pro Val Lys	
	355 360 365	
60	ttt gaa aag gat gtt tac aga gca gaa ata agt gaa ttt gct cct ccc	1332
	Phe Glu Lys Asp Val Tyr Arg Ala Glu Ile Ser Glu Phe Ala Pro Pro	
	370 375 380	
	aac aca cct gtg gtc atg gta aag gcc att cct gct tat tcc cat ttg	1380
	Asn Thr Pro Val Val Met Val Lys Ala Ile Pro Ala Tyr Ser His Leu	
	385 390 395	

	agg tat gtt ttt aaa agg aca cct gga aaa gct aaa ttc agt tta aat	1428
	Arg Tyr Val Phe Lys Arg Thr Pro Gly Lys Ala Lys Phe Ser Leu Asn	
	400 405 410	
5	tac aac act ggt ctc att tct att tta gaa cca gtt aaa aga cag cag	1476
	Tyr Asn Thr Gly Leu Ile Ser Ile Leu Glu Pro Val Lys Arg Gln Gln	
	415 420 425 430	
10	gca gcc cat ttt gaa ctt gaa gta aca aca agt gac aga aaa gcg tcc	1524
	Ala Ala His Phe Glu Leu Glu Val Thr Thr Ser Asp Arg Lys Ala Ser	
	435 440 445	
15	acc aag gtc ttg gtg aaa gtc tta ggt gca aat agc aat ccc cct gaa	1572
	Thr Lys Val Leu Val Lys Val Leu Gly Ala Asn Ser Asn Pro Pro Glu	
	450 455 460	
20	ttt acc cag aca gcg tac aaa gct gct ttt gat gag aac gtg ccc att	1620
	Phe Thr Gln Thr Ala Tyr Lys Ala Ala Phe Asp Glu Asn Val Pro Ile	
	465 470 475	
	ggt act act atc atg agc ctg agt gcc gta gac cct gat gag ggt gag	1668
	Gly Thr Thr Ile Met Ser Leu Ser Ala Val Asp Pro Asp Glu Gly Glu	
	480 485 490	
25	aat ggg tac gtg aca tac agt atc gca aat tta aat cat gtg ccg ttt	1716
	Asn Gly Tyr Val Thr Tyr Ser Ile Ala Asn Leu Asn His Val Pro Phe	
	495 500 505 510	
30	gcg att gac cat ttc act ggt gcc gtg agt acg tca gaa aac ctg gac	1764
	Ala Ile Asp His Phe Thr Gly Ala Val Ser Thr Ser Glu Asn Leu Asp	
	515 520 525	
35	tac gaa ctg atg cct cgg gtt tat act ctg agg att cgt gca tca gac	1812
	Tyr Glu Leu Met Pro Arg Val Tyr Thr Leu Arg Ile Arg Ala Ser Asp	
	530 535 540	
40	tgg ggc ttg ccg tac cgc cgg gaa gtc gaa gtc ctt gct aca att act	1860
	Trp Gly Leu Pro Tyr Arg Arg Glu Val Glu Val Leu Ala Thr Ile Thr	
	545 550 555	
	ctc aat aac ttg aat gac aac aca cct ttg ttt gag aaa ata aat tgt	1908
	Leu Asn Asn Leu Asn Asp Asn Thr Pro Leu Phe Glu Lys Ile Asn Cys	
	560 565 570	
45	gaa ggg aca att ccc aga gat cta ggc gtg gga gag caa ata acc act	1956
	Glu Gly Thr Ile Pro Arg Asp Leu Gly Val Gly Glu Gln Ile Thr Thr	
	575 580 585 590	
50	gtt tct gct att gat gca gat gaa ctt cag ttg gta cag tat cag att	2004
	Val Ser Ala Ile Asp Ala Asp Glu Leu Gln Leu Val Gln Tyr Gln Ile	
	595 600 605	
55	gaa gct gga aat gaa ctg gat ttg ttt agt tta aac ccc aac tcg ggg	2052
	Glu Ala Gly Asn Glu Leu Asp Leu Phe Ser Leu Asn Pro Asn Ser Gly	
	610 615 620	
60	gta ttg tca tta aag cga tcg cta atg gat ggc tta ggt gca aag gtg	2100
	Val Leu Ser Leu Lys Arg Ser Leu Met Asp Gly Leu Gly Ala Lys Val	
	625 630 635	
	tct ttc cac agt ctg aga atc aca gct aca gat gga gaa aat ttt gcc	2148
	Ser Phe His Ser Leu Arg Ile Thr Ala Thr Asp Gly Glu Asn Phe Ala	
	640 645 650	

	aca cca tta tat atc aac ata aca gtg gct gcc agt cac aag ctg gta	2196
	Thr Pro Leu Tyr Ile Asn Ile Thr Val Ala Ala Ser His Lys Leu Val	
	655 660 665 670	
5	aac ttg cag tgt gaa gag act ggt gtt gcc aaa atg ctg gca gag aag	2244
	Asn Leu Gln Cys Glu Glu Thr Gly Val Ala Lys Met Leu Ala Glu Lys	
	675 680 685	
10	ctc ctg cag gca aat aaa tta cac aac cag gga gag gtg gag gat att	2292
	Leu Leu Gln Ala Asn Lys Leu His Asn Gln Gly Glu Val Glu Asp Ile	
	690 695 700	
15	ttc ttc gat tct cac tct gtc aat gct cac ata ccg cag ttt aga agc	2340
	Phe Phe Asp Ser His Ser Val Asn Ala His Ile Pro Gln Phe Arg Ser	
	705 710 715	
20	act ctt ccg act ggt att cag gta aag gaa aac cag cct gtg ggt tcc	2388
	Thr Leu Pro Thr Gly Ile Gln Val Lys Glu Asn Gln Pro Val Gly Ser	
	720 725 730	
	agt gta att ttc atg aac tcc act gac ctt gac act ggc ttc aat gga	2436
	Ser Val Ile Phe Met Asn Ser Thr Asp Leu Asp Thr Gly Phe Asn Gly	
	735 740 745 750	
25	aaa ctg gtc tat gct gtt tct gga gga aat gag gat agt tgc ttc atg	2484
	Lys Leu Val Tyr Ala Val Ser Gly Gly Asn Glu Asp Ser Cys Phe Met	
	755 760 765	
30	att gat atg gaa aca gga atg ctg aaa att tta tct cct ctt gac cgt	2532
	Ile Asp Met Glu Thr Gly Met Leu Lys Ile Leu Ser Pro Leu Asp Arg	
	770 775 780	
35	gaa aca aca gac aaa tac acc ctg aat att acc gtc tat gac ctt ggg	2580
	Glu Thr Thr Asp Lys Tyr Thr Leu Asn Ile Thr Val Tyr Asp Leu Gly	
	785 790 795	
40	ata ccc cag aag gct gcg tgg cgt ctt cta cat gtc gtg gtt gtc gat	2628
	Ile Pro Gln Lys Ala Ala Trp Arg Leu Leu His Val Val Val Val Asp	
	800 805 810	
	gcc aat gat aat cca ccc gag ttt tta cag gag agc tat ttt gtg gaa	2676
	Ala Asn Asp Asn Pro Pro Glu Phe Leu Gln Glu Ser Tyr Phe Val Glu	
	815 820 825 830	
45	gtg agt gaa gac aag gag gta cat agt gaa atc atc cag gtt gaa gcc	2724
	Val Ser Glu Asp Lys Glu Val His Ser Glu Ile Ile Gln Val Glu Ala	
	835 840 845	
50	aca gat aaa gac ctg ggg ccc aac gga cac gtg acg tac tca att ctt	2772
	Thr Asp Lys Asp Leu Gly Pro Asn Gly His Val Thr Tyr Ser Ile Leu	
	850 855 860	
55	aca gac aca gac aca ttt tca att gac agc gtg acg ggt gtt gtt aac	2820
	Thr Asp Thr Asp Thr Phe Ser Ile Asp Ser Val Thr Gly Val Val Asn	
	865 870 875	
60	atc gca cgc cct ctg gat cga gag ctg cag cat gag cac tcc tta aag	2868
	Ile Ala Arg Pro Leu Asp Arg Glu Leu Gln His Glu His Ser Leu Lys	
	880 885 890	
	att gag gcc agg gac caa gcc aga gaa gag cct cag ctg ttc tcc act	2916
	Ile Glu Ala Arg Asp Gln Ala Arg Glu Glu Pro Gln Leu Phe Ser Thr	
	895 900 905 910	

	gtc gtt gtg aaa gta tca cta gaa gat gtt aat gac aac cca cct aca	2964
	Val Val Val Lys Val Ser Leu Glu Asp Val Asn Asp Asn Pro Pro Thr	
	915 920 925	
5	ttt att cca cct aat tat cgt gtg aaa gtc cga gag gat ctt cca gaa	3012
	Phe Ile Pro Pro Asn Tyr Arg Val Lys Val Arg Glu Asp Leu Pro Glu	
	930 935 940	
10	gga acc gtc atc atg tgg tta gaa gcc cac gat cct gat tta ggt cag	3060
	Gly Thr Val Ile Met Trp Leu Glu Ala His Asp Pro Asp Leu Gly Gln	
	945 950 955	
15	tct ggt cag gtg aga tac agc ctt ctg gac cac gga gaa gga aac ttc	3108
	Ser Gly Gln Val Arg Tyr Ser Leu Leu Asp His Gly Glu Gly Asn Phe	
	960 965 970	
20	gat gtg gat aaa ctc agt gga gca gtt agg atc gtc cag cag ttg gac	3156
	Asp Val Asp Lys Leu Ser Gly Ala Val Arg Ile Val Gln Gln Leu Asp	
	975 980 985 990	
	ttt gag aag aag caa gtg tat aat ctc act gtg agg gcc aaa gac aag	3204
	Phe Glu Lys Lys Gln Val Tyr Asn Leu Thr Val Arg Ala Lys Asp Lys	
	995 1000 1005	
25	gga aag cca gtt tct ctg tct tct act tgc tat gtt gaa gtt gag	3249
	Gly Lys Pro Val Ser Leu Ser Ser Thr Cys Tyr Val Glu Val Glu	
	1010 1015 1020	
30	gtg gtt gat gtg aat gag aac ctg cac cca ccc gtg ttt tcc agc	3294
	Val Val Asp Val Asn Glu Asn Leu His Pro Pro Val Phe Ser Ser	
	1025 1030 1035	
35	ttt gtg gaa aag ggg aca gtg aaa gaa gat gca cct gtt ggt tca	3339
	Phe Val Glu Lys Gly Thr Val Lys Glu Asp Ala Pro Val Gly Ser	
	1040 1045 1050	
40	ttg gta atg acg gtg tcg gct cat gat gag gac gcc gga aga gat	3384
	Leu Val Met Thr Val Ser Ala His Asp Glu Asp Ala Gly Arg Asp	
	1055 1060 1065	
	ggg gag atc cga tac tcc att aga gat ggc tct ggc gtt ggt gtt	3429
	Gly Glu Ile Arg Tyr Ser Ile Arg Asp Gly Ser Gly Val Gly Val	
	1070 1075 1080	
45	ttc aaa ata ggt gaa gag aca ggt gtc ata gag acg tca gat cga	3474
	Phe Lys Ile Gly Glu Glu Thr Gly Val Ile Glu Thr Ser Asp Arg	
	1085 1090 1095	
50	ctg gac cgt gaa tcg acc tcc cat tat tgg cta aca gtc ttt gca	3519
	Leu Asp Arg Glu Ser Thr Ser His Tyr Trp Leu Thr Val Phe Ala	
	1100 1105 1110	
55	acc gat cag ggt gtc gtg cct ctt tca tcg ttc ata gag atc tac	3564
	Thr Asp Gln Gly Val Val Pro Leu Ser Ser Phe Ile Glu Ile Tyr	
	1115 1120 1125	
60	ata gag gtt gag gat gtc aat gac aat gca cca cag aca tca gag	3609
	Ile Glu Val Glu Asp Val Asn Asp Asn Ala Pro Gln Thr Ser Glu	
	1130 1135 1140	
	cct gtt tat tac cca gaa atc atg gaa aat tct cct aaa gat gta	3654
	Pro Val Tyr Tyr Pro Glu Ile Met Glu Asn Ser Pro Lys Asp Val	
	1145 1150 1155	

	tct	gtg	gtc	cag	atc	gag	gca	ttt	gat	cca	gat	tcg	agc	tct	aat	3699
	Ser	Val	Val	Gln	Ile	Glu	Ala	Phe	Asp	Pro	Asp	Ser	Ser	Ser	Asn	
				1160					1165					1170		
5	gac	aag	ctc	atg	tac	aaa	att	aca	agt	gga	aat	cca	caa	gga	ttc	3744
	Asp	Lys	Leu	Met	Tyr	Lys	Ile	Thr	Ser	Gly	Asn	Pro	Gln	Gly	Phe	
				1175					1180					1185		
10	ttt	tca	ata	cat	cct	aaa	aca	ggg	ctc	atc	aca	act	acg	tca	agg	3789
	Phe	Ser	Ile	His	Pro	Lys	Thr	Gly	Leu	Ile	Thr	Thr	Thr	Ser	Arg	
				1190					1195					1200		
15	aag	cta	gac	cga	gaa	cag	caa	gat	gaa	cac	ata	tta	gag	gtt	act	3834
	Lys	Leu	Asp	Arg	Glu	Gln	Gln	Asp	Glu	His	Ile	Leu	Glu	Val	Thr	
				1205					1210					1215		
20	gtg	aca	gac	aat	ggg	agt	ccc	ccc	aaa	tca	acc	att	gca	aga	gtc	3879
	Val	Thr	Asp	Asn	Gly	Ser	Pro	Pro	Lys	Ser	Thr	Ile	Ala	Arg	Val	
				1220					1225					1230		
	att	gtg	aaa	atc	ctt	gat	gaa	aat	gac	aac	aaa	cct	cag	ttt	ctg	3924
	Ile	Val	Lys	Ile	Leu	Asp	Glu	Asn	Asp	Asn	Lys	Pro	Gln	Phe	Leu	
				1235					1240					1245		
25	caa	aag	ttc	tac	aaa	atc	aga	ctc	cct	gag	cgg	gaa	aag	cca	gac	3969
	Gln	Lys	Phe	Tyr	Lys	Ile	Arg	Leu	Pro	Glu	Arg	Glu	Lys	Pro	Asp	
				1250					1255					1260		
30	cga	gaa	aga	aat	gcc	aga	cgg	gag	ccg	ctc	tat	cgc	gtc	ata	gcc	4014
	Arg	Glu	Arg	Asn	Ala	Arg	Arg	Glu	Pro	Leu	Tyr	Arg	Val	Ile	Ala	
				1265					1270					1275		
35	acc	gac	aag	gat	gag	ggc	ccc	aat	gca	gaa	atc	tcc	tac	agc	atc	4059
	Thr	Asp	Lys	Asp	Glu	Gly	Pro	Asn	Ala	Glu	Ile	Ser	Tyr	Ser	Ile	
				1280					1285					1290		
40	gaa	gac	ggg	aat	gag	cat	ggc	aaa	ttt	ttc	atc	gaa	ccg	aaa	act	4104
	Glu	Asp	Gly	Asn	Glu	His	Gly	Lys	Phe	Phe	Ile	Glu	Pro	Lys	Thr	
				1295					1300					1305		
	gga	gtg	gtt	tcg	tcc	aag	agg	ttt	tca	gca	gct	gga	gaa	tat	gat	4149
	Gly	Val	Val	Ser	Ser	Lys	Arg	Phe	Ser	Ala	Ala	Gly	Glu	Tyr	Asp	
				1310					1315					1320		
45	att	ctt	tca	att	aag	gca	gtt	gac	aat	ggg	cgc	cct	caa	aag	tca	4194
	Ile	Leu	Ser	Ile	Lys	Ala	Val	Asp	Asn	Gly	Arg	Pro	Gln	Lys	Ser	
				1325					1330					1335		
50	tca	acc	acc	aga	ctc	cat	att	gaa	tgg	atc	tcc	aag	ccc	aaa	cag	4239
	Ser	Thr	Thr	Arg	Leu	His	Ile	Glu	Trp	Ile	Ser	Lys	Pro	Lys	Gln	
				1340					1345					1350		
55	tcc	ctg	gag	ccc	att	tca	ttt	gaa	gaa	tca	ttt	ttt	acc	ttt	act	4284
	Ser	Leu	Glu	Pro	Ile	Ser	Phe	Glu	Glu	Ser	Phe	Phe	Thr	Phe	Thr	
				1355					1360					1365		
60	gtg	atg	gaa	agt	gac	ccc	gtt	gct	cac	atg	att	gga	gta	ata	tct	4329
	Val	Met	Glu	Ser	Asp	Pro	Val	Ala	His	Met	Ile	Gly	Val	Ile	Ser	
				1370					1375					1380		
	gtg	gag	cct	cct	ggc	ata	ccc	ctt	tgg	ttt	gac	atc	act	ggg	ggc	4374
	Val	Glu	Pro	Pro	Gly	Ile	Pro	Leu	Trp	Phe	Asp	Ile	Thr	Gly	Gly	
				1385					1390					1395		

	aac tac gac agt cac ttc gat gtg gac aag gga act gga acc atc	4419
	Asn Tyr Asp Ser His Phe Asp Val Asp Lys Gly Thr Gly Thr Ile	
	1400 1405 1410	
5	att gtt gcc aaa cct ctt gat gca gaa cag aag tca aac tac aac	4464
	Ile Val Ala Lys Pro Leu Asp Ala Glu Gln Lys Ser Asn Tyr Asn	
	1415 1420 1425	
10	ctc aca gtc gag gct aca gat gga acc acc act atc ctc act cag	4509
	Leu Thr Val Glu Ala Thr Asp Gly Thr Thr Thr Ile Leu Thr Gln	
	1430 1435 1440	
15	gta ttc atc aaa gta ata gac aca aat gac cat cgt cct cag ttt	4554
	Val Phe Ile Lys Val Ile Asp Thr Asn Asp His Arg Pro Gln Phe	
	1445 1450 1455	
20	tct aca tca aag tat gaa gtt gtt att cct gaa gat aca gcg cca	4599
	Ser Thr Ser Lys Tyr Glu Val Val Ile Pro Glu Asp Thr Ala Pro	
	1460 1465 1470	
	gaa aca gaa att ttg caa atc agt gct gtg gat cag gat gag aaa	4644
	Glu Thr Glu Ile Leu Gln Ile Ser Ala Val Asp Gln Asp Glu Lys	
	1475 1480 1485	
25	aac aaa cta atc tac act ctg cag agc agt aga gat cca ctg agt	4689
	Asn Lys Leu Ile Tyr Thr Leu Gln Ser Ser Arg Asp Pro Leu Ser	
	1490 1495 1500	
30	ctc aag aaa ttt cgt ctt gat cct gca acc gcc tct ctc tat act	4734
	Leu Lys Lys Phe Arg Leu Asp Pro Ala Thr Gly Ser Leu Tyr Thr	
	1505 1510 1515	
35	tct gag aaa ctg gat cat gaa gct gtt tca cca gca cac ctc acg	4779
	Ser Glu Lys Leu Asp His Glu Ala Val Ser Pro Ala His Leu Thr	
	1520 1525 1530	
40	gtc atg gta cga gat caa gat gtg cct gta aaa cgc aac ttt gca	4824
	Val Met Val Arg Asp Gln Asp Val Pro Val Lys Arg Asn Phe Ala	
	1535 1540 1545	
	agg att gtg gtc aat gtc agc gac acg aat gac cac gcc ccg tgg	4869
	Arg Ile Val Val Asn Val Ser Asp Thr Asn Asp His Ala Pro Trp	
	1550 1555 1560	
45	ttc acc gct tcc tcc tac aaa ggg cgg gtt tat gaa tcg gca gcc	4914
	Phe Thr Ala Ser Ser Tyr Lys Gly Arg Val Tyr Glu Ser Ala Ala	
	1565 1570 1575	
50	gtt ggc tca gtt gtg ttg cag gtg acg gct ctg gac aag gac aaa	4959
	Val Gly Ser Val Val Leu Gln Val Thr Ala Leu Asp Lys Asp Lys	
	1580 1585 1590	
55	ggg aaa aat gct gaa gtg ctg tac tcg atc gag tca gga aat att	5004
	Gly Lys Asn Ala Glu Val Leu Tyr Ser Ile Glu Ser Gly Asn Ile	
	1595 1600 1605	
60	gga aat att gga aat tct ttt atg att gat cct gtc ttg ggc tct	5049
	Gly Asn Ile Gly Asn Ser Phe Met Ile Asp Pro Val Leu Gly Ser	
	1610 1615 1620	
	att aaa act gcc aaa gaa tta gat cga agt aac caa gcg gag tat	5094
	Ile Lys Thr Ala Lys Glu Leu Asp Arg Ser Asn Gln Ala Glu Tyr	
	1625 1630 1635	

	gat tta atg gta	aaa gct aca gat aag	ggc agt cca cca atg agt	5139
	Asp Leu Met Val	Lys Ala Thr Asp Lys	Gly Ser Pro Pro Met Ser	
	1640	1645	1650	
5	gaa ata act tct	gtg cgt atc ttt gtc	aca att gct gac aac gcc	5184
	Glu Ile Thr Ser	Val Arg Ile Phe Val	Thr Ile Ala Asp Asn Ala	
	1655	1660	1665	
10	tct ccg aag ttt	aca tca aaa gaa tat	tct gtt gaa ctt agt gaa	5229
	Ser Pro Lys Phe	Thr Ser Lys Glu Tyr	Ser Val Glu Leu Ser Glu	
	1670	1675	1680	
15	act gtc agc att	ggg agt ttc gtt ggg	atg gtt aca gcc cat agt	5274
	Thr Val Ser Ile	Gly Ser Phe Val Gly	Met Val Thr Ala His Ser	
	1685	1690	1695	
20	caa tca tca gtg	gtg tat gaa ata aaa	gat gga aat aca ggt gat	5319
	Gln Ser Ser Val	Val Tyr Glu Ile Lys	Asp Gly Asn Thr Gly Asp	
	1700	1705	1710	
	gct ttt gat att	aat cca cat tct gga	act atc atc act cag aaa	5364
	Ala Phe Asp Ile	Asn Pro His Ser Gly	Thr Ile Ile Thr Gln Lys	
	1715	1720	1725	
25	gcc ctg gac ttt	gaa act ttg ccc att	tac aca ttg ata ata caa	5409
	Ala Leu Asp Phe	Glu Thr Leu Pro Ile	Tyr Thr Leu Ile Ile Gln	
	1730	1735	1740	
30	gga act aac atg	gct ggt ttg tcc act	aat aca acg gtt cta gtt	5454
	Gly Thr Asn Met	Ala Gly Leu Ser Thr	Asn Thr Thr Val Leu Val	
	1745	1750	1755	
35	cac ttg cag gat	gag aat gac aac gcg	cca gtt ttt atg cag gca	5499
	His Leu Gln Asp	Glu Asn Asp Asn Ala	Pro Val Phe Met Gln Ala	
	1760	1765	1770	
40	gaa tat aca gga	ctc att agt gaa tca	gcc tca att aac agc gtg	5544
	Glu Tyr Thr Gly	Leu Ile Ser Glu Ser	Ala Ser Ile Asn Ser Val	
	1775	1780	1785	
	gtc cta aca gac	agg aat gtc cca ctg	gtg att cga gca gct gat	5589
	Val Leu Thr Asp	Arg Asn Val Pro Leu	Val Ile Arg Ala Ala Asp	
	1790	1795	1800	
45	gct gat aaa gac	tca aat gct ttg ctt	gta tat cac att gtt gaa	5634
	Ala Asp Lys Asp	Ser Asn Ala Leu Leu	Val Tyr His Ile Val Glu	
	1805	1810	1815	
50	cca tct gta cac	aca tat ttt gct att	gat tct agc act ggt gct	5679
	Pro Ser Val His	Thr Tyr Phe Ala Ile	Asp Ser Ser Thr Gly Ala	
	1820	1825	1830	
55	att cat aca gta	cta agt ctg gac tat	gaa gaa aca agt att ttt	5724
	Ile His Thr Val	Leu Ser Leu Asp Tyr	Glu Glu Thr Ser Ile Phe	
	1835	1840	1845	
60	cac ttt acc gtc	caa gtg cat gac atg	gga acc cca cgt tta ttt	5769
	His Phe Thr Val	Gln Val His Asp Met	Gly Thr Pro Arg Leu Phe	
	1850	1855	1860	
	gct gag tat gca	gcg aat gta aca gta	cat gta att gac att aat	5814
	Ala Glu Tyr Ala	Ala Asn Val Thr Val	His Val Ile Asp Ile Asn	
	1865	1870	1875	

		gac tgc ccc cct	gtg ttt gcc aag cca	tta tat gaa gca tct ctt	5859
		Asp Cys Pro Pro	Val Phe Ala Lys Pro	Leu Tyr Glu Ala Ser Leu	
		1880	1885	1890	
5		ttg tta cca aca	tac aaa gga gta aaa	gtc atc aca gta aat gct	5904
		Leu Leu Pro Thr	Tyr Lys Gly Val Lys	Val Ile Thr Val Asn Ala	
		1895	1900	1905	
10		aca gat gct gat	tca agt gca ttc tca	cag ttg att tac tcc atc	5949
		Thr Asp Ala Asp	Ser Ser Ala Phe Ser	Gln Leu Ile Tyr Ser Ile	
		1910	1915	1920	
15		acc gaa ggc aac	atc ggg gag aag ttt	tct atg gac tac aag act	5994
		Thr Glu Gly Asn	Ile Gly Glu Lys Phe	Ser Met Asp Tyr Lys Thr	
		1925	1930	1935	
20		ggt gct ctc act	gtc caa aac aca act	cag tta aga agc cgc tac	6039
		Gly Ala Leu Thr	Val Gln Asn Thr Thr	Gln Leu Arg Ser Arg Tyr	
		1940	1945	1950	
		gag cta acc gtt	aga gct tcc gat ggc	aga ttt gcc ggc ctt acc	6084
		Glu Leu Thr Val	Arg Ala Ser Asp Gly	Arg Phe Ala Gly Leu Thr	
		1955	1960	1965	
25		tct gtc aaa att	aat gtg aaa gaa agc	aaa gaa agt cac cta aag	6129
		Ser Val Lys Ile	Asn Val Lys Glu Ser	Lys Glu Ser His Leu Lys	
		1970	1975	1980	
30		ttt acc cag gat	gtc tac tct gcg gta	gtg aaa gag aat tcc acc	6174
		Phe Thr Gln Asp	Val Tyr Ser Ala Val	Val Lys Glu Asn Ser Thr	
		1985	1990	1995	
35		gag gcc gaa aca	tta gct gtc att act	gct att ggg agt cca atc	6219
		Glu Ala Glu Thr	Leu Ala Val Ile Thr	Ala Ile Gly Ser Pro Ile	
		2000	2005	2010	
40		aat gag cct ttg	ttt tat cac atc ctc	aac cca gat cgc aga ttt	6264
		Asn Glu Pro Leu	Phe Tyr His Ile Leu	Asn Pro Asp Arg Arg Phe	
		2015	2020	2025	
		aaa ata agc cgc	act tca ggg gtt ctg	tca acc act ggc acg ccc	6309
		Lys Ile Ser Arg	Thr Ser Gly Val Leu	Ser Thr Thr Gly Thr Pro	
		2030	2035	2040	
45		ttc gat cgt gag	cag cag gag gcg ttt	gat gtg gtt gta gaa gtg	6354
		Phe Asp Arg Glu	Gln Gln Glu Ala Phe	Asp Val Val Val Glu Val	
		2045	2050	2055	
50		ata gag gaa cat	aag cct tct gca gtg	gcc cac gtt gtc gtg aag	6399
		Ile Glu Glu His	Lys Pro Ser Ala Val	Ala His Val Val Val Lys	
		2060	2065	2070	
55		gtc att gta gaa	gac caa aat gat aat	gcg ccg gtg ttt gtc aac	6444
		Val Ile Val Glu	Asp Gln Asn Asp Asn	Ala Pro Val Phe Val Asn	
		2075	2080	2085	
		ctt ccc tac tac	gcc gtt gtt aaa gtg	gac act gag gtg ggc cat	6489
		Leu Pro Tyr Tyr	Ala Val Val Lys Val	Asp Thr Glu Val Gly His	
		2090	2095	2100	
60		gtc att cgc tat	gtc act gct gta gac	aga gac agt ggc aga aac	6534
		Val Ile Arg Tyr	Val Thr Ala Val Asp	Arg Asp Ser Gly Arg Asn	
		2105	2110	2115	

	ggg gaa gtg cat	tac tac ctc aag gaa	cat cat gaa cac ttt	caa	6579
	Gly Glu Val His	Tyr Tyr Leu Lys Glu	His His Glu His Phe	Gln	
	2120	2125	2130		
5	att gga ccc ttg	ggt gaa att tca ctg	aaa aag caa ttt gag	ctt	6624
	Ile Gly Pro Leu	Gly Glu Ile Ser Leu	Lys Lys Gln Phe Glu	Leu	
	2135	2140	2145		
10	gac acc tta aat	aaa gaa tat ctt gtt	aca gtg gtt gca aaa	gat	6669
	Asp Thr Leu Asn	Lys Glu Tyr Leu Val	Thr Val Val Ala Lys	Asp	
	2150	2155	2160		
15	gga ggg aac ccg	gcc ttt tca gcg gaa	gtt atc gtt ccg atc	act	6714
	Gly Gly Asn Pro	Ala Phe Ser Ala Glu	Val Ile Val Pro Ile	Thr	
	2165	2170	2175		
20	gtc atg aat aaa	gcc atg cct gtg ttt	gaa aaa cct ttc tac	agt	6759
	Val Met Asn Lys	Ala Met Pro Val Phe	Glu Lys Pro Phe Tyr	Ser	
	2180	2185	2190		
	gca gag att gca	gag agc atc cag gtg	cac agc cct gtg gtc	cac	6804
	Ala Glu Ile Ala	Glu Ser Ile Gln Val	His Ser Pro Val Val	His	
	2195	2200	2205		
25	gtg cag gct aac	agc ccg gaa ggc ctg	aaa gtg ttc tac agc	atc	6849
	Val Gln Ala Asn	Ser Pro Glu Gly Leu	Lys Val Phe Tyr Ser	Ile	
	2210	2215	2220		
30	aca gac gga gac	cct ttc agc cag ttc	act att aac ttc aat	act	6894
	Thr Asp Gly Asp	Pro Phe Ser Gln Phe	Thr Ile Asn Phe Asn	Thr	
	2225	2230	2235		
35	gga gtt atc aat	gtc ata gct cct ctg	gac ttt gag gcc cac	ccg	6939
	Gly Val Ile Asn	Val Ile Ala Pro Leu	Asp Phe Glu Ala His	Pro	
	2240	2245	2250		
40	gca tat aag ctg	agc ata cgc gca act	gac tcc ttg acg ggc	gct	6984
	Ala Tyr Lys Leu	Ser Ile Arg Ala Thr	Asp Ser Leu Thr Gly	Ala	
	2255	2260	2265		
	cat gct gaa gta	ttt gtg gac atc ata	gta gac gac atc aat	gat	7029
	His Ala Glu Val	Phe Val Asp Ile Ile	Val Asp Asp Ile Asn	Asp	
	2270	2275	2280		
45	aac cct cct gtg	ttt gct cag cag tct	tat gcg gtg acc ctg	tct	7074
	Asn Pro Pro Val	Phe Ala Gln Gln Ser	Tyr Ala Val Thr Leu	Ser	
	2285	2290	2295		
50	gag gca tct gta	att gga acg tct gtt	gtt caa gtt aga gcc	acc	7119
	Glu Ala Ser Val	Ile Gly Thr Ser Val	Val Gln Val Arg Ala	Thr	
	2300	2305	2310		
55	gat tct gat tca	gaa cca aat aga gga	atc tca tac cag atg	ttt	7164
	Asp Ser Asp Ser	Glu Pro Asn Arg Gly	Ile Ser Tyr Gln Met	Phe	
	2315	2320	2325		
60	ggg aat cac agc	aag agt cat gat cat	ttt cat gta gac agc	agc	7209
	Gly Asn His Ser	Lys Ser His Asp His	Phe His Val Asp Ser	Ser	
	2330	2335	2340		
	act ggc ctc atc	tca cta ctc aga acc	ctg gat tac gag cag	tcc	7254
	Thr Gly Leu Ile	Ser Leu Leu Arg Thr	Leu Asp Tyr Glu Gln	Ser	
	2345	2350	2355		

101

	cgg cag cac acg att ttt gtg agg gca gtt gat ggt ggt atg ccc	7299
	Arg Gln His Thr Ile Phe Val Arg Ala Val Asp Gly Gly Met Pro	
	2360 2365 2370	
5	acg ctg agc agt gat gtg att gtc acg gtg gac gtt acc gac ctc	7344
	Thr Leu Ser Ser Asp Val Ile Val Thr Val Asp Val Thr Asp Leu	
	2375 2380 2385	
10	aat ggt aat cca cca ctc ttt gaa caa cag att tat gaa gcc aga	7389
	Asn Gly Asn Pro Pro Leu Phe Glu Gln Gln Ile Tyr Glu Ala Arg	
	2390 2395 2400	
15	att agc gag cac gcc cct cat ggg cat ttc gtg acc tgt gta aaa	7434
	Ile Ser Glu His Ala Pro His Gly His Phe Val Thr Cys Val Lys	
	2405 2410 2415	
20	gcc tat gat gca gac agt tca gac ata gac aag ttg cag tat tcc	7479
	Ala Tyr Asp Ala Asp Ser Ser Asp Ile Asp Lys Leu Gln Tyr Ser	
	2420 2425 2430	
	att ctg tct ggc aat gat cat aaa cat ttt gtc att gac agt gca	7524
	Ile Leu Ser Gly Asn Asp His Lys His Phe Val Ile Asp Ser Ala	
	2435 2440 2445	
25	aca ggg att atc acc ctc tca aac ctg cac cgg cac gcc ctg aag	7569
	Thr Gly Ile Ile Thr Leu Ser Asn Leu His Arg His Ala Leu Lys	
	2450 2455 2460	
30	cca ttt tac agt ctt aac ctg tca gtg tct gat gga gtt ttt aga	7614
	Pro Phe Tyr Ser Leu Asn Leu Ser Val Ser Asp Gly Val Phe Arg	
	2465 2470 2475	
35	agt tcc acc cag gtt cat gta act gta att gga ggc aat ttg cac	7659
	Ser Ser Thr Gln Val His Val Thr Val Ile Gly Gly Asn Leu His	
	2480 2485 2490	
40	agt cct gct ttc ctt cag aac gaa tat gaa gtg gaa cta gct gaa	7704
	Ser Pro Ala Phe Leu Gln Asn Glu Tyr Glu Val Glu Leu Ala Glu	
	2495 2500 2505	
	aac gct ccc cta cat acc ctg gtg atg gag gtg aaa act acg gat	7749
	Asn Ala Pro Leu His Thr Leu Val Met Glu Val Lys Thr Thr Asp	
	2510 2515 2520	
45	ggg gat tct ggt att tat ggt cac gtt act tac cat att gta aat	7794
	Gly Asp Ser Gly Ile Tyr Gly His Val Thr Tyr His Ile Val Asn	
	2525 2530 2535	
50	gac ttt gcc aaa gac aga ttt tac ata aat gag aga gga cag ata	7839
	Asp Phe Ala Lys Asp Arg Phe Tyr Ile Asn Glu Arg Gly Gln Ile	
	2540 2545 2550	
55	ttt act ttg gaa aaa ctt gat cga gaa acc ccg gcg gag aaa gtg	7884
	Phe Thr Leu Glu Lys Leu Asp Arg Glu Thr Pro Ala Glu Lys Val	
	2555 2560 2565	
	atc tca gtc cgt tta atg gct aag gat gct gga gga aaa gtt gct	7929
	Ile Ser Val Arg Leu Met Ala Lys Asp Ala Gly Gly Lys Val Ala	
	2570 2575 2580	
60	ttc tgc acc gtg aat gtc atc ctt aca gat gac aat gac aat gca	7974
	Phe Cys Thr Val Asn Val Ile Leu Thr Asp Asp Asn Asp Asn Ala	
	2585 2590 2595	

	cca	caa	ttt	cga	gca	acc	aaa	tac	gaa	gtg	aat	atc	ggg	tcc	agt	8019
	Pro	Gln	Phe	Arg	Ala	Thr	Lys	Tyr	Glu	Val	Asn	Ile	Gly	Ser	Ser	
				2600					2605					2610		
5	gct	gct	aaa	ggg	act	tca	gtc	gta	aag	tct	gca	agt	gat	gcc	gat	8064
	Ala	Ala	Lys	Gly	Thr	Ser	Val	Val	Lys	Ser	Ala	Ser	Asp	Ala	Asp	
				2615					2620					2625		
10	gag	ggc	tcc	aat	gcc	gac	atc	acc	tat	gcc	att	gaa	gca	gac	tct	8109
	Glu	Gly	Ser	Asn	Ala	Asp	Ile	Thr	Tyr	Ala	Ile	Glu	Ala	Asp	Ser	
				2630					2635					2640		
15	gaa	agt	gta	aaa	gag	aat	ttg	gaa	att	aac	aaa	ctg	tcc	ggc	gta	8154
	Glu	Ser	Val	Lys	Glu	Asn	Leu	Glu	Ile	Asn	Lys	Leu	Ser	Gly	Val	
				2645					2650					2655		
20	atc	act	aca	aag	gag	agc	ctc	att	ggc	ttg	gaa	aat	gaa	ttc	ttc	8199
	Ile	Thr	Thr	Lys	Glu	Ser	Leu	Ile	Gly	Leu	Glu	Asn	Glu	Phe	Phe	
				2660					2665					2670		
	act	ttc	ttt	gtt	aga	gct	gtg	gat	aat	ggg	tct	cca	tca	aaa	gaa	8244
	Thr	Phe	Phe	Val	Arg	Ala	Val	Asp	Asn	Gly	Ser	Pro	Ser	Lys	Glu	
				2675					2680					2685		
25	tct	gtt	gtt	ctt	gtc	tat	gtt	aaa	atc	ctt	cca	ccg	gaa	atg	cag	8289
	Ser	Val	Val	Leu	Val	Tyr	Val	Lys	Ile	Leu	Pro	Pro	Glu	Met	Gln	
				2690					2695					2700		
30	ctt	cca	aaa	ttt	tca	gaa	cct	ttc	tat	acc	ttt	aca	gtg	tca	gag	8334
	Leu	Pro	Lys	Phe	Ser	Glu	Pro	Phe	Tyr	Thr	Phe	Thr	Val	Ser	Glu	
				2705					2710					2715		
35	gac	gtg	cct	gtt	gga	aca	gag	ata	gat	ctc	atc	cga	gca	gaa	cat	8379
	Asp	Val	Pro	Val	Gly	Thr	Glu	Ile	Asp	Leu	Ile	Arg	Ala	Glu	His	
				2720					2725					2730		
40	agt	ggg	act	gtt	ctt	tac	agc	ctg	gtc	aaa	ggg	aat	act	cca	gaa	8424
	Ser	Gly	Thr	Val	Leu	Tyr	Ser	Leu	Val	Lys	Gly	Asn	Thr	Pro	Glu	
				2735					2740					2745		
	agc	aat	agg	gat	gag	tcc	ttt	gtg	att	gac	aga	cag	agc	ggg	aga	8469
	Ser	Asn	Arg	Asp	Glu	Ser	Phe	Val	Ile	Asp	Arg	Gln	Ser	Gly	Arg	
				2750					2755					2760		
45	ctg	aag	ttg	gag	aag	agt	ctt	gat	cat	gag	aca	act	aag	tgg	tat	8514
	Leu	Lys	Leu	Glu	Lys	Ser	Leu	Asp	His	Glu	Thr	Thr	Lys	Trp	Tyr	
				2765					2770					2775		
50	cag	ttt	tcc	ata	ctg	gcc	agg	tgc	act	caa	gat	gac	cat	gag	atg	8559
	Gln	Phe	Ser	Ile	Leu	Ala	Arg	Cys	Thr	Gln	Asp	Asp	His	Glu	Met	
				2780					2785					2790		
55	gtg	gct	tct	gta	gat	gtt	agt	atc	caa	gtg	aaa	gat	gca	aat	gac	8604
	Val	Ala	Ser	Val	Asp	Val	Ser	Ile	Gln	Val	Lys	Asp	Ala	Asn	Asp	
				2795					2800					2805		
	aac	agc	ccg	gtc	ttt	gaa	tct	agt	cca	tat	gag	gca	ttc	att	gtt	8649
	Asn	Ser	Pro	Val	Phe	Glu	Ser	Ser	Pro	Tyr	Glu	Ala	Phe	Ile	Val	
				2810					2815					2820		
60	gaa	aac	ctg	cca	ggg	gga	agt	aga	gta	att	cag	atc	agg	gca	tct	8694
	Glu	Asn	Leu	Pro	Gly	Gly	Ser	Arg	Val	Ile	Gln	Ile	Arg	Ala	Ser	
				2825					2830					2835		

		gat gct gac tca	gga acc aac ggc caa	ggt atg tat agc ctg	gat	8739
		Asp Ala Asp Ser	Gly Thr Asn Gly Gln	Val Met Tyr Ser Leu	Asp	
		2840	2845	2850		
5		cag tca caa agt	gtg gaa gtc att	gaa tcc ttt gcc att	aac atg	8784
		Gln Ser Gln Ser	Val Glu Val Ile Glu	Ser Phe Ala Ile Asn	Met	
		2855	2860	2865		
10		gaa aca ggc tgg	att aca act tta	aag gaa ctt gac cat	gaa aag	8829
		Glu Thr Gly Trp	Ile Thr Thr Leu Lys	Glu Leu Asp His Glu	Lys	
		2870	2875	2880		
15		aga gac aat tac	cag att aaa gtg	ggt gca tca gat cat	ggt gaa	8874
		Arg Asp Asn Tyr	Gln Ile Lys Val Val	Ala Ser Asp His Gly	Glu	
		2885	2890	2895		
20		aag atc cag cta	tcc tcc aca gcc	att gtg gat gtt acc	gtc acc	8919
		Lys Ile Gln Leu	Ser Ser Thr Ala Ile	Val Asp Val Thr Val	Thr	
		2900	2905	2910		
		gat gtc aac gat	agt cca cca cga	ttc acg gcc gag atc	tat aaa	8964
		Asp Val Asn Asp	Ser Pro Pro Arg Phe	Thr Ala Glu Ile Tyr	Lys	
		2915	2920	2925		
25		ggg act gtg agt	gag gat gac ccc	caa ggt ggg gtg att	gcc atc	9009
		Gly Thr Val Ser	Glu Asp Asp Pro Gln	Gly Gly Val Ile Ala	Ile	
		2930	2935	2940		
30		tta agt acc acg	gat gct gat tct	gaa gag atc aac aga	caa gtt	9054
		Leu Ser Thr Thr	Asp Ala Asp Ser Glu	Glu Ile Asn Arg Gln	Val	
		2945	2950	2955		
35		aca tat ttc ata	aca gga ggg gat	cct tta gga cag ttt	gcc gtt	9099
		Thr Tyr Phe Ile	Thr Gly Gly Asp Pro	Leu Gly Gln Phe Ala	Val	
		2960	2965	2970		
40		gaa act ata cag	aat gaa tgg aag	gta tat gtg aag aaa	cct cta	9144
		Glu Thr Ile Gln	Asn Glu Trp Lys Val	Tyr Val Lys Lys Pro	Leu	
		2975	2980	2985		
		gac agg gaa aaa	agg gac aat tac	ctt ctt act atc acg	gca act	9189
		Asp Arg Glu Lys	Arg Asp Asn Tyr Leu	Leu Thr Ile Thr Ala	Thr	
		2990	2995	3000		
45		gat ggc acc ttc	tca tca aaa gcg	ata gtt gaa gtg aaa	gtt ctg	9234
		Asp Gly Thr Phe	Ser Ser Lys Ala Ile	Val Glu Val Lys Val	Leu	
		3005	3010	3015		
50		gat gca aat gac	aac agt cca gtt	tgt gaa aag act tta	tat tca	9279
		Asp Ala Asn Asp	Asn Ser Pro Val Cys	Glu Lys Thr Leu Tyr	Ser	
		3020	3025	3030		
55		gac act att cct	gaa gac gtc ctt	cct gga aaa ttg atc	atg cag	9324
		Asp Thr Ile Pro	Glu Asp Val Leu Pro	Gly Lys Leu Ile Met	Gln	
		3035	3040	3045		
60		atc tct gct aca	gac gca gac atc	cgc tct aac gct gaa	att act	9369
		Ile Ser Ala Thr	Asp Ala Asp Ile Arg	Ser Asn Ala Glu Ile	Thr	
		3050	3055	3060		
		tac acg tta ttg	ggg tca ggt gca	gaa aaa ttc aaa cta	aat cca	9414
		Tyr Thr Leu Leu	Gly Ser Gly Ala Glu	Lys Phe Lys Leu Asn	Pro	
		3065	3070	3075		

		gac	aca	ggg	gaa	ctg	aaa	acg	tca	acc	ccc	ctt	gat	cgt	gag	gag	9459
		Asp	Thr	Gly	Glu	Leu	Lys	Thr	Ser	Thr	Pro	Leu	Asp	Arg	Glu	Glu	
					3080					3085					3090		
5		caa	gct	gtt	tat	cat	ctt	ctc	gtc	agg	gcc	aca	gat	gga	gga	gga	9504
		Gln	Ala	Val	Tyr	His	Leu	Leu	Val	Arg	Ala	Thr	Asp	Gly	Gly	Gly	
					3095					3100					3105		
10		aga	ttc	tgc	caa	gcc	agt	att	gtc	gtc	acg	cta	gaa	gat	gtg	aac	9549
		Arg	Phe	Cys	Gln	Ala	Ser	Ile	Val	Val	Thr	Leu	Glu	Asp	Val	Asn	
					3110					3115					3120		
15		gat	aac	gcc	ccc	gaa	ttc	tct	gcc	gat	cct	tat	gcc	atc	acc	gtg	9594
		Asp	Asn	Ala	Pro	Glu	Phe	Ser	Ala	Asp	Pro	Tyr	Ala	Ile	Thr	Val	
					3125					3130					3135		
20		ttt	gaa	aac	aca	gag	ccg	gga	acg	ctg	ctg	aca	aga	gtg	cag	gcc	9639
		Phe	Glu	Asn	Thr	Glu	Pro	Gly	Thr	Leu	Leu	Thr	Arg	Val	Gln	Ala	
					3140					3145					3150		
		aca	gat	gcc	gac	gca	gga	tta	aat	cgg	aag	att	tta	tac	tca	ctg	9684
		Thr	Asp	Ala	Asp	Ala	Gly	Leu	Asn	Arg	Lys	Ile	Leu	Tyr	Ser	Leu	
					3155					3160					3165		
25		att	gac	tct	gct	gat	ggg	cag	ttc	tcc	att	aac	gaa	tta	tct	gga	9729
		Ile	Asp	Ser	Ala	Asp	Gly	Gln	Phe	Ser	Ile	Asn	Glu	Leu	Ser	Gly	
					3170					3175					3180		
30		att	att	cag	tta	gaa	aaa	cct	ttg	gac	aga	gaa	ctc	cag	gca	gta	9774
		Ile	Ile	Gln	Leu	Glu	Lys	Pro	Leu	Asp	Arg	Glu	Leu	Gln	Ala	Val	
					3185					3190					3195		
35		tac	acc	ctc	tct	ttg	aaa	gct	gtg	gat	caa	ggc	ttg	cca	agg	agg	9819
		Tyr	Thr	Leu	Ser	Leu	Lys	Ala	Val	Asp	Gln	Gly	Leu	Pro	Arg	Arg	
					3200					3205					3210		
40		ctg	act	gcc	act	ggc	act	gtg	att	gta	tca	gtt	ctt	gac	ata	aat	9864
		Leu	Thr	Ala	Thr	Gly	Thr	Val	Ile	Val	Ser	Val	Leu	Asp	Ile	Asn	
					3215					3220					3225		
		gac	aac	ccc	cct	gtg	ttt	gag	tac	cgt	gaa	tat	ggg	gcc	acc	gtg	9909
		Asp	Asn	Pro	Pro	Val	Phe	Glu	Tyr	Arg	Glu	Tyr	Gly	Ala	Thr	Val	
					3230					3235					3240		
45		tct	gag	gac	att	ctt	gtt	gga	act	gaa	gtt	ctt	caa	gtg	tat	gca	9954
		Ser	Glu	Asp	Ile	Leu	Val	Gly	Thr	Glu	Val	Leu	Gln	Val	Tyr	Ala	
					3245					3250					3255		
50		gca	agt	cgg	gat	att	gaa	gca	aat	gca	gaa	atc	acc	tac	tca	ata	9999
		Ala	Ser	Arg	Asp	Ile	Glu	Ala	Asn	Ala	Glu	Ile	Thr	Tyr	Ser	Ile	
					3260					3265					3270		
55		ata	agt	gga	aat	gaa	cat	ggg	aaa	ttc	agc	ata	gat	tct	aaa	aca	10044
		Ile	Ser	Gly	Asn	Glu	His	Gly	Lys	Phe	Ser	Ile	Asp	Ser	Lys	Thr	
					3275					3280					3285		
60		ggg	gcc	gta	ttt	atc	att	gag	aat	ctg	gat	tat	gag	agc	tct	cat	10089
		Gly	Ala	Val	Phe	Ile	Ile	Glu	Asn	Leu	Asp	Tyr	Glu	Ser	Ser	His	
					3290					3295					3300		
		gag	tat	tac	cta	aca	gta	gag	gcc	act	gat	gga	ggc	acg	cct	tca	10134
		Glu	Tyr	Tyr	Leu	Thr	Val	Glu	Ala	Thr	Asp	Gly	Gly	Thr	Pro	Ser	
					3305					3310					3315		

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	ctg agc gac gtt gcc act gtg aac gtt aat gta aca gat atc aac	10179
	Leu Ser Asp Val Ala Thr Val Asn Val Asn Val Thr Asp Ile Asn	
	3320 3325 3330	
5	gat aat acc cct gtg ttc agc caa gac acc tac acg aca gtc atc	10224
	Asp Asn Thr Pro Val Phe Ser Gln Asp Thr Tyr Thr Thr Val Ile	
	3335 3340 3345	
10	agt gaa gat gcc gtt ctt gag cag tct gtc atc acg gtt atg gcc	10269
	Ser Glu Asp Ala Val Leu Glu Gln Ser Val Ile Thr Val Met Ala	
	3350 3355 3360	
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	Asp Asp Ala Asp Gly Pro Ser Asn Ser His Ile His Tyr Ser Ile	
	3365 3370 3375	
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	Ile Asp Gly Asn Gln Gly Ser Ser Phe Thr Ile Asp Pro Val Arg	
	3380 3385 3390	
	gga gaa gtc aaa gtg acc aaa ctt ctc gac cga gaa acg att tca	10404
	Gly Glu Val Lys Val Thr Lys Leu Leu Asp Arg Glu Thr Ile Ser	
	3395 3400 3405	
25	ggt tac acg ctc acg gtt caa gct tct gat aat ggc agt cca ccc	10449
	Gly Tyr Thr Leu Thr Val Gln Ala Ser Asp Asn Gly Ser Pro Pro	
	3410 3415 3420	
30	aga gtc aac acg acg acc gtg aac atc gat gtg tcc gat gtc aat	10494
	Arg Val Asn Thr Thr Thr Val Asn Ile Asp Val Ser Asp Val Asn	
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35	gac aac gcg ccc gtc ttc tcc agg gga aac tac agt gtc att atc	10539
	Asp Asn Ala Pro Val Phe Ser Arg Gly Asn Tyr Ser Val Ile Ile	
	3440 3445 3450	
40	cag gaa aat aag cca gtg ggc ttc agc gtg ctg cag ctg gta gta	10584
	Gln Glu Asn Lys Pro Val Gly Phe Ser Val Leu Gln Leu Val Val	
	3455 3460 3465	
	aca gat gag gat tct tcc cat aac ggt cca ccc ttc ttc ttt act	10629
	Thr Asp Glu Asp Ser Ser His Asn Gly Pro Pro Phe Phe Phe Thr	
	3470 3475 3480	
45	att gta act gga aat gat gag aag gct ttt gaa gtt aac ccg caa	10674
	Ile Val Thr Gly Asn Asp Glu Lys Ala Phe Glu Val Asn Pro Gln	
	3485 3490 3495	
50	gga gtc ctc ctg aca tca tct gcc atc aag agg aag gag aaa gat	10719
	Gly Val Leu Leu Thr Ser Ser Ala Ile Lys Arg Lys Glu Lys Asp	
	3500 3505 3510	
55	cat tac tta ctg cag gtg aag gtg gca gat aat gga aag cct cag	10764
	His Tyr Leu Leu Gln Val Lys Val Ala Asp Asn Gly Lys Pro Gln	
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	ttg tca tct ttg aca tac att gac att agg gta att gag gag agc	10809
	Leu Ser Ser Leu Thr Tyr Ile Asp Ile Arg Val Ile Glu Glu Ser	
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60	atc tat ccg cct gcg att ttg ccc ctg gag att ttc atc acc tct	10854
	Ile Tyr Pro Pro Ala Ile Leu Pro Leu Glu Ile Phe Ile Thr Ser	
	3545 3550 3555	

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	tct gga gaa gaa	tac tca ggt ggc gtc	att ggg aag atc cat gcc	10899
	Ser Gly Glu Glu	Tyr Ser Gly Gly Val	Ile Gly Lys Ile His Ala	
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5	aca gac cag gac	gtg tat gat act cta	acc tac agt ctc gac cct	10944
	Thr Asp Gln Asp	Val Tyr Asp Thr Leu	Thr Tyr Ser Leu Asp Pro	
	3575	3580	3585	
10	cag atg gac aac	ctg ttc tct gtt tcc	agc aca ggg ggc aag ctg	10989
	Gln Met Asp Asn	Leu Phe Ser Val Ser	Ser Thr Gly Gly Lys Leu	
	3590	3595	3600	
15	ata gca cac aaa	aag cta gac ata ggg	caa tac ctt ctc aat gtc	11034
	Ile Ala His Lys	Lys Leu Asp Ile Gly	Gln Tyr Leu Leu Asn Val	
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	agc gta aca gat	ggg aag ttc acg acg	gtg gcc gac atc aca gtg	11079
	Ser Val Thr Asp	Gly Lys Phe Thr Thr	Val Ala Asp Ile Thr Val	
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20	cat atc aga caa	gtc aca cag gag atg	ttg aac cac acc atc gcg	11124
	His Ile Arg Gln	Val Thr Gln Glu Met	Leu Asn His Thr Ile Ala	
	3635	3640	3645	
25	atc cgc ttt gcc	aac ctc act ccg gaa	gaa ttc gtt ggt gac tac	11169
	Ile Arg Phe Ala	Asn Leu Thr Pro Glu	Glu Phe Val Gly Asp Tyr	
	3650	3655	3660	
30	tgg cgc aac ttc	cag cga gct tta cgg	aac atc ctg ggt gtg agg	11214
	Trp Arg Asn Phe	Gln Arg Ala Leu Arg	Asn Ile Leu Gly Val Arg	
	3665	3670	3675	
35	agg aac gac ata	cag att gtt agt ttg	cag tcc tct gaa cct cac	11259
	Arg Asn Asp Ile	Gln Ile Val Ser Leu	Gln Ser Ser Glu Pro His	
	3680	3685	3690	
40	cca cat ctg gac	gtc tta ctt ttt gta	gag aaa cca ggt agt gct	11304
	Pro His Leu Asp	Val Leu Leu Phe Val	Glu Lys Pro Gly Ser Ala	
	3695	3700	3705	
	cag atc tca aca	aaa caa ctt ctg cac	aag att aac tct tcc gtg	11349
	Gln Ile Ser Thr	Lys Gln Leu Leu His	Lys Ile Asn Ser Ser Val	
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45	act gac att gag	gaa atc att gga gtt	agg ata ctg aat gta ttc	11394
	Thr Asp Ile Glu	Glu Ile Ile Gly Val	Arg Ile Leu Asn Val Phe	
	3725	3730	3735	
50	cag aaa ctc tgc	gcg gga ctg gac tgc	ccc tgg aag ttc tgc gat	11439
	Gln Lys Leu Cys	Ala Gly Leu Asp Cys	Pro Trp Lys Phe Cys Asp	
	3740	3745	3750	
55	gaa aag gtg tct	gtg gat gaa agt gtg	atg tca aca cac agc aca	11484
	Glu Lys Val Ser	Val Asp Glu Ser Val	Met Ser Thr His Ser Thr	
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	gcc aga ctg agt	ttt gtg act ccc cgc	cac cac agg gca gcg gtg	11529
	Ala Arg Leu Ser	Phe Val Thr Pro Arg	His His Arg Ala Ala Val	
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60	tgt ctc tgc aaa	gag gga agg tgc cca	cct gtc cac cat ggc tgt	11574
	Cys Leu Cys Lys	Glu Gly Arg Cys Pro	Pro Val His His Gly Cys	
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	gaa gat gat ccg tgc cct gag gga tcc gaa tgt gtg tct gat ccc	11619
	Glu Asp Asp Pro Cys Pro Glu Gly Ser Glu Cys Val Ser Asp Pro	
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5	tgg gag gag aaa cac acc tgt gtc tgt ccc agc ggc agg ttt ggt	11664
	Trp Glu Glu Lys His Thr Cys Val Cys Pro Ser Gly Arg Phe Gly	
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	Gln Cys Pro Gly Ser Ser Ser Met Thr Leu Thr Gly Asn Ser Tyr	
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	Val Lys Tyr Arg Leu Thr Glu Asn Glu Asn Lys Leu Glu Met Lys	
	3845 3850 3855	
20	ctg acc atg agg ctc aga aca tat tcc acg cat gcg gtt gtc atg	11799
	Leu Thr Met Arg Leu Arg Thr Tyr Ser Thr His Ala Val Val Met	
	3860 3865 3870	
	tat gct cga gga act gac tat agc atc ttg gag att cat cat gga	11844
	Tyr Ala Arg Gly Thr Asp Tyr Ser Ile Leu Glu Ile His His Gly	
	3875 3880 3885	
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	Arg Leu Gln Tyr Lys Phe Asp Cys Gly Ser Gly Pro Gly Ile Val	
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	Ser Val Gln Ser Ile Gln Val Asn Asp Gly Gln Trp His Ala Val	
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	Ala Leu Glu Val Asn Gly Asn Tyr Ala Arg Leu Val Leu Asp Gln	
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40	gtt cat act gca tcg ggc aca gcc cca ggg act ctg aaa acc ctg	12024
	Val His Thr Ala Ser Gly Thr Ala Pro Gly Thr Leu Lys Thr Leu	
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	Asn Leu Asp Asn Tyr Val Phe Phe Gly Gly His Ile Arg Gln Gln	
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	Gly Thr Arg His Gly Arg Ser Pro Gln Val Gly Asn Gly Phe Arg	
	3965 3970 3975	
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	Gly Cys Met Asp Ser Ile Tyr Leu Asn Gly Gln Glu Leu Pro Leu	
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	Asn Ser Lys Pro Arg Ser Tyr Ala His Ile Glu Glu Ser Val Asp	
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	Val Ser Pro Gly Cys Phe Leu Thr Ala Thr Glu Asp Cys Ala Ser	
	4010 4015 4020	
	aac cct tgc cag aat gga ggc gtt tgc aat ccg tca cct gct gga	12294
	Asn Pro Cys Gln Asn Gly Gly Val Cys Asn Pro Ser Pro Ala Gly	
	4025 4030 4035	

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	ggt tat tac tgc	aaa tgc agt gcc ttg	tac ata ggg acc cac tgt	12339
	Gly Tyr Tyr Cys	Lys Cys Ser Ala Leu	Tyr Ile Gly Thr His Cys	
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	Glu Ile Ser Val	Asn Pro Cys Ser Ser	Asn Pro Cys Leu Tyr Gly	
	4055	4060	4065	
10	ggc acg tgt gtt	gtc gac aac gga ggc	ttt gtt tgc cag tgt aga	12429
	Gly Thr Cys Val	Val Asp Asn Gly Gly	Phe Val Cys Gln Cys Arg	
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15	gga tta tat act	ggt cag agg tgt cag	ctt agt cca tac tgc aaa	12474
	Gly Leu Tyr Thr	Gly Gln Arg Cys Gln	Leu Ser Pro Tyr Cys Lys	
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	Asp Glu Pro Cys	Lys Asn Gly Gly Thr	Cys Phe Asp Ser Leu Asp	
	4100	4105	4110	
	ggc gcc gtt tgt	cag tgt gat tcg ggt	ttt agg gga gaa agg tgt	12564
	Gly Ala Val Cys	Gln Cys Asp Ser Gly	Phe Arg Gly Glu Arg Cys	
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	Gln Ser Asp Ile	Asp Glu Cys Ser Gly	Asn Pro Cys Leu His Gly	
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	Ala Leu Cys Glu	Asn Thr His Gly Ser	Tyr His Cys Asn Cys Ser	
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	His Glu Tyr Arg	Gly Arg His Cys Glu	Asp Ala Ala Pro Asn Gln	
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	Tyr Val Ser Thr	Pro Trp Asn Ile Gly	Leu Ala Glu Gly Ile Gly	
	4175	4180	4185	
	atc gtt gtg ttt	gtt gca ggg ata ttt	tta ctg gtg gtg gtg ttt	12789
	Ile Val Val Phe	Val Ala Gly Ile Phe	Leu Leu Val Val Val Phe	
	4190	4195	4200	
45	gtt ctc tgc cgt	aag atg att agt cgg	aaa aag aag cat cag gct	12834
	Val Leu Cys Arg	Lys Met Ile Ser Arg	Lys Lys Lys His Gln Ala	
	4205	4210	4215	
50	gaa cct aaa gac	aag cac ctg gga ccc	gct acg gct ttc ttg caa	12879
	Glu Pro Lys Asp	Lys His Leu Gly Pro	Ala Thr Ala Phe Leu Gln	
	4220	4225	4230	
55	aga ccg tat ttt	gat tcc aag cta aat	aag aac att tac tca gac	12924
	Arg Pro Tyr Phe	Asp Ser Lys Leu Asn	Lys Asn Ile Tyr Ser Asp	
	4235	4240	4245	
60	ata cca ccc cag	gtg cct gtc cgg cct	att tcc tac acc ccg agt	12969
	Ile Pro Pro Gln	Val Pro Val Arg Pro	Ile Ser Tyr Thr Pro Ser	
	4250	4255	4260	
	att cca agt gac	tca aga aac aat ctg	gac cga aat tcc ttc gaa	13014
	Ile Pro Ser Asp	Ser Arg Asn Asn Leu	Asp Arg Asn Ser Phe Glu	
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	gga tct gct atc cca gag cat ccc gaa ttc agc act ttt aac ccc	13059
	Gly Ser Ala Ile Pro Glu His Pro Glu Phe Ser Thr Phe Asn Pro	
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	Glu Ser Val His Gly His Arg Lys Ala Val Ala Val Cys Ser Val	
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	Ala Pro Asn Leu Pro Pro Pro Pro Pro Ser Asn Ser Pro Ser Asp	
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	Ser Asp Ser Ile Gln Lys Pro Ser Trp Asp Phe Asp Tyr Asp Thr	
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	Lys Val Val Asp Leu Asp Pro Cys Leu Ser Lys Lys Pro Leu Glu	
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	gaa aag cct tcc cag cca tac agt gcc cgg gaa agc ctg tct gaa	13284
	Glu Lys Pro Ser Gln Pro Tyr Ser Ala Arg Glu Ser Leu Ser Glu	
	4355 4360 4365	
25	gtg cag tcc ctg agc tcc ttc cag tcc gaa tcg tgc gat gac aat	13329
	Val Gln Ser Leu Ser Ser Phe Gln Ser Glu Ser Cys Asp Asp Asn	
	4370 4375 4380	
30	ggg tat cac tgg gat aca tca gat tgg atg cca agc gtt cct ctg	13374
	Gly Tyr His Trp Asp Thr Ser Asp Trp Met Pro Ser Val Pro Leu	
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	Thr Pro Leu Tyr Ser Ala Asp Pro Asn Ala Ile Asp Thr Asp Tyr	
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	Tyr Pro Gly Gly Tyr Asp Ile Glu Ser Asp Phe Pro Pro Pro Pro	
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	Ala Ala Gly Ser Leu Gly Ser Ser Arg Asn Arg Gln Arg Phe	
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	Asn Leu Asn Gln Tyr Leu Pro Asn Phe Tyr Pro Leu Asp Met Ser	
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	gaa cct caa aca aaa ggc act ggt gag aat agt act tgt aga gaa	13734
	Glu Pro Gln Thr Lys Gly Thr Gly Glu Asn Ser Thr Cys Arg Glu	
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	Ser Cys Ser Asp	Val Ser Ala Cys Cys	Glu Val Glu Ser Glu Val	
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	Met Met Ser Asp	Tyr Glu Ser Gly Asp	Asp Gly His Phe Glu Glu	
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	1	5	10	15
60	His Phe Gly Asp	Ser Asp Gly Ser Gln Arg Leu Glu Gln Thr Pro Leu		
	20	25	30	

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Gln Phe Thr His Leu Glu Tyr Asn Val Thr Val Gln Glu Asn Ser Ala
 35 40 45

5 Ala Lys Thr Tyr Val Gly His Pro Val Lys Met Gly Val Tyr Ile Thr
 50 55 60

10 His Pro Ala Trp Glu Val Arg Tyr Lys Ile Val Ser Gly Asp Ser Glu
 65 70 75 80

15 Asn Leu Phe Lys Ala Glu Glu Tyr Ile Leu Gly Asp Phe Cys Phe Leu
 85 90 95

Arg Ile Arg Thr Lys Gly Gly Asn Thr Ala Ile Leu Asn Arg Glu Val
 100 105 110

20 Lys Asp His Tyr Thr Leu Ile Val Lys Ala Leu Glu Lys Asn Thr Asn
 115 120 125

25 Val Glu Ala Arg Thr Lys Val Arg Val Gln Val Leu Asp Thr Asn Asp
 130 135 140

30 Leu Arg Pro Leu Phe Ser Pro Thr Ser Tyr Ser Val Ser Leu Pro Glu
 145 150 155 160

35 Asn Thr Ala Ile Arg Thr Ser Ile Ala Arg Val Ser Ala Thr Asp Ala
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Asp Ile Gly Thr Asn Gly Glu Phe Tyr Tyr Ser Phe Lys Asp Arg Thr
 180 185 190

40 Asp Met Phe Ala Ile His Pro Thr Ser Gly Val Ile Val Leu Thr Gly
 195 200 205

45 Arg Leu Asp Tyr Leu Glu Thr Lys Leu Tyr Glu Met Glu Ile Leu Ala
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50 Ala Asp Arg Gly Met Lys Leu Tyr Gly Ser Ser Gly Ile Ser Ser Met
 225 230 235 240

55 Ala Lys Leu Thr Val His Ile Glu Gln Ala Asn Glu Cys Ala Pro Val
 245 250 255

Ile Thr Ala Val Thr Leu Ser Pro Ser Glu Leu Asp Arg Asp Pro Ala
 260 265 270

60 Tyr Ala Ile Val Thr Val Asp Asp Cys Asp Gln Gly Ala Asn Gly Asp
 275 280 285

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Ile Ala Ser Leu Ser Ile Val Ala Gly Asp Leu Leu Gln Gln Phe Arg
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5 Thr Val Arg Ser Phe Pro Gly Ser Lys Glu Tyr Lys Val Lys Ala Ile
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10 Gly Asp Ile Asp Trp Asp Ser His Pro Phe Gly Tyr Asn Leu Thr Leu
 325 330 335

15 Gln Ala Lys Asp Lys Gly Thr Pro Pro Gln Phe Ser Ser Val Lys Val
 340 345 350

Ile His Val Thr Ser Pro Gln Phe Lys Ala Gly Pro Val Lys Phe Glu
 355 360 365

20 Lys Asp Val Tyr Arg Ala Glu Ile Ser Glu Phe Ala Pro Pro Asn Thr
 370 375 380

25 Pro Val Val Met Val Lys Ala Ile Pro Ala Tyr Ser His Leu Arg Tyr
 385 390 395 400

30 Val Phe Lys Arg Thr Pro Gly Lys Ala Lys Phe Ser Leu Asn Tyr Asn
 405 410 415

35 Thr Gly Leu Ile Ser Ile Leu Glu Pro Val Lys Arg Gln Gln Ala Ala
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His Phe Glu Leu Glu Val Thr Thr Ser Asp Arg Lys Ala Ser Thr Lys
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40 Val Leu Val Lys Val Leu Gly Ala Asn Ser Asn Pro Pro Glu Phe Thr
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45 Gln Thr Ala Tyr Lys Ala Ala Phe Asp Glu Asn Val Pro Ile Gly Thr
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50 Thr Ile Met Ser Leu Ser Ala Val Asp Pro Asp Glu Gly Glu Asn Gly
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55 Tyr Val Thr Tyr Ser Ile Ala Asn Leu Asn His Val Pro Phe Ala Ile
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Asp His Phe Thr Gly Ala Val Ser Thr Ser Glu Asn Leu Asp Tyr Glu
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60 Leu Met Pro Arg Val Tyr Thr Leu Arg Ile Arg Ala Ser Asp Trp Gly
 530 535 540

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Leu Pro Tyr Arg Arg Glu Val Glu Val Leu Ala Thr Ile Thr Leu Asn
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5 Asn Leu Asn Asp Asn Thr Pro Leu Phe Glu Lys Ile Asn Cys Glu Gly
 565 570 575

10 Thr Ile Pro Arg Asp Leu Gly Val Gly Glu Gln Ile Thr Thr Val Ser
 580 585 590

15 Ala Ile Asp Ala Asp Glu Leu Gln Leu Val Gln Tyr Gln Ile Glu Ala
 595 600 605

Gly Asn Glu Leu Asp Leu Phe Ser Leu Asn Pro Asn Ser Gly Val Leu
 610 615 620

20 Ser Leu Lys Arg Ser Leu Met Asp Gly Leu Gly Ala Lys Val Ser Phe
 625 630 635 640

25 His Ser Leu Arg Ile Thr Ala Thr Asp Gly Glu Asn Phe Ala Thr Pro
 645 650 655

30 Leu Tyr Ile Asn Ile Thr Val Ala Ala Ser His Lys Leu Val Asn Leu
 660 665 670

35 Gln Cys Glu Glu Thr Gly Val Ala Lys Met Leu Ala Glu Lys Leu Leu
 675 680 685

40 Gln Ala Asn Lys Leu His Asn Gln Gly Glu Val Glu Asp Ile Phe Phe
 690 695 700

Asp Ser His Ser Val Asn Ala His Ile Pro Gln Phe Arg Ser Thr Leu
 705 710 715 720

45 Pro Thr Gly Ile Gln Val Lys Glu Asn Gln Pro Val Gly Ser Ser Val
 725 730 735

50 Ile Phe Met Asn Ser Thr Asp Leu Asp Thr Gly Phe Asn Gly Lys Leu
 740 745 750

55 Val Tyr Ala Val Ser Gly Gly Asn Glu Asp Ser Cys Phe Met Ile Asp
 755 760 765

Met Glu Thr Gly Met Leu Lys Ile Leu Ser Pro Leu Asp Arg Glu Thr
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60 Thr Asp Lys Tyr Thr Leu Asn Ile Thr Val Tyr Asp Leu Gly Ile Pro
 785 790 795 800

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Gln Lys Ala Ala Trp Arg Leu Leu His Val Val Val Val Asp Ala Asn
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5 Asp Asn Pro Pro Glu Phe Leu Gln Glu Ser Tyr Phe Val Glu Val Ser
 820 825 830

10 Glu Asp Lys Glu Val His Ser Glu Ile Ile Gln Val Glu Ala Thr Asp
 835 840 845

15 Lys Asp Leu Gly Pro Asn Gly His Val Thr Tyr Ser Ile Leu Thr Asp
 850 855 860

Thr Asp Thr Phe Ser Ile Asp Ser Val Thr Gly Val Val Asn Ile Ala
 865 870 875 880

20 Arg Pro Leu Asp Arg Glu Leu Gln His Glu His Ser Leu Lys Ile Glu
 885 890 895

25 Ala Arg Asp Gln Ala Arg Glu Glu Pro Gln Leu Phe Ser Thr Val Val
 900 905 910

30 Val Lys Val Ser Leu Glu Asp Val Asn Asp Asn Pro Pro Thr Phe Ile
 915 920 925

35 Pro Pro Asn Tyr Arg Val Lys Val Arg Glu Asp Leu Pro Glu Gly Thr
 930 935 940

Val Ile Met Trp Leu Glu Ala His Asp Pro Asp Leu Gly Gln Ser Gly
 945 950 955 960

40 Gln Val Arg Tyr Ser Leu Leu Asp His Gly Glu Gly Asn Phe Asp Val
 965 970 975

45 Asp Lys Leu Ser Gly Ala Val Arg Ile Val Gln Gln Leu Asp Phe Glu
 980 985 990

50 Lys Lys Gln Val Tyr Asn Leu Thr Val Arg Ala Lys Asp Lys Gly Lys
 995 1000 1005

55 Pro Val Ser Leu Ser Ser Thr Cys Tyr Val Glu Val Glu Val Val
 1010 1015 1020

Asp Val Asn Glu Asn Leu His Pro Pro Val Phe Ser Ser Phe Val
 1025 1030 1035

60 Glu Lys Gly Thr Val Lys Glu Asp Ala Pro Val Gly Ser Leu Val
 1040 1045 1050

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	Met	Thr	Val	Ser	Ala	His	Asp	Glu	Asp	Ala	Gly	Arg	Asp	Gly	Glu
	1055						1060					1065			
5	Ile	Arg	Tyr	Ser	Ile	Arg	Asp	Gly	Ser	Gly	Val	Gly	Val	Phe	Lys
	1070						1075					1080			
10	Ile	Gly	Glu	Glu	Thr	Gly	Val	Ile	Glu	Thr	Ser	Asp	Arg	Leu	Asp
	1085						1090					1095			
15	Arg	Glu	Ser	Thr	Ser	His	Tyr	Trp	Leu	Thr	Val	Phe	Ala	Thr	Asp
	1100						1105					1110			
20	Gln	Gly	Val	Val	Pro	Leu	Ser	Ser	Phe	Ile	Glu	Ile	Tyr	Ile	Glu
	1115						1120					1125			
25	Val	Glu	Asp	Val	Asn	Asp	Asn	Ala	Pro	Gln	Thr	Ser	Glu	Pro	Val
	1130						1135					1140			
30	Tyr	Tyr	Pro	Glu	Ile	Met	Glu	Asn	Ser	Pro	Lys	Asp	Val	Ser	Val
	1145						1150					1155			
35	Val	Gln	Ile	Glu	Ala	Phe	Asp	Pro	Asp	Ser	Ser	Ser	Asn	Asp	Lys
	1160						1165					1170			
40	Leu	Met	Tyr	Lys	Ile	Thr	Ser	Gly	Asn	Pro	Gln	Gly	Phe	Phe	Ser
	1175						1180					1185			
45	Ile	His	Pro	Lys	Thr	Gly	Leu	Ile	Thr	Thr	Thr	Ser	Arg	Lys	Leu
	1190						1195					1200			
50	Asp	Arg	Glu	Gln	Gln	Asp	Glu	His	Ile	Leu	Glu	Val	Thr	Val	Thr
	1205						1210					1215			
55	Asp	Asn	Gly	Ser	Pro	Pro	Lys	Ser	Thr	Ile	Ala	Arg	Val	Ile	Val
	1220						1225					1230			
60	Lys	Ile	Leu	Asp	Glu	Asn	Asp	Asn	Lys	Pro	Gln	Phe	Leu	Gln	Lys
	1235						1240					1245			
65	Phe	Tyr	Lys	Ile	Arg	Leu	Pro	Glu	Arg	Glu	Lys	Pro	Asp	Arg	Glu
	1250						1255					1260			
70	Arg	Asn	Ala	Arg	Arg	Glu	Pro	Leu	Tyr	Arg	Val	Ile	Ala	Thr	Asp
	1265						1270					1275			
75	Lys	Asp	Glu	Gly	Pro	Asn	Ala	Glu	Ile	Ser	Tyr	Ser	Ile	Glu	Asp
	1280						1285					1290			

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	Gly	Asn	Glu	His	Gly	Lys	Phe	Phe	Ile	Glu	Pro	Lys	Thr	Gly	Val
	1295						1300					1305			
5	Val	Ser	Ser	Lys	Arg	Phe	Ser	Ala	Ala	Gly	Glu	Tyr	Asp	Ile	Leu
	1310						1315					1320			
10	Ser	Ile	Lys	Ala	Val	Asp	Asn	Gly	Arg	Pro	Gln	Lys	Ser	Ser	Thr
	1325						1330					1335			
15	Thr	Arg	Leu	His	Ile	Glu	Trp	Ile	Ser	Lys	Pro	Lys	Gln	Ser	Leu
	1340						1345					1350			
20	Glu	Pro	Ile	Ser	Phe	Glu	Glu	Ser	Phe	Phe	Thr	Phe	Thr	Val	Met
	1355						1360					1365			
25	Glu	Ser	Asp	Pro	Val	Ala	His	Met	Ile	Gly	Val	Ile	Ser	Val	Glu
	1370						1375					1380			
30	Pro	Pro	Gly	Ile	Pro	Leu	Trp	Phe	Asp	Ile	Thr	Gly	Gly	Asn	Tyr
	1385						1390					1395			
35	Asp	Ser	His	Phe	Asp	Val	Asp	Lys	Gly	Thr	Gly	Thr	Ile	Ile	Val
	1400						1405					1410			
40	Ala	Lys	Pro	Leu	Asp	Ala	Glu	Gln	Lys	Ser	Asn	Tyr	Asn	Leu	Thr
	1415						1420					1425			
45	Val	Glu	Ala	Thr	Asp	Gly	Thr	Thr	Thr	Ile	Leu	Thr	Gln	Val	Phe
	1430						1435					1440			
50	Ile	Lys	Val	Ile	Asp	Thr	Asn	Asp	His	Arg	Pro	Gln	Phe	Ser	Thr
	1445						1450					1455			
55	Ser	Lys	Tyr	Glu	Val	Val	Ile	Pro	Glu	Asp	Thr	Ala	Pro	Glu	Thr
	1460						1465					1470			
60	Glu	Ile	Leu	Gln	Ile	Ser	Ala	Val	Asp	Gln	Asp	Glu	Lys	Asn	Lys
	1475						1480					1485			
65	Leu	Ile	Tyr	Thr	Leu	Gln	Ser	Ser	Arg	Asp	Pro	Leu	Ser	Leu	Lys
	1490						1495					1500			
70	Lys	Phe	Arg	Leu	Asp	Pro	Ala	Thr	Gly	Ser	Leu	Tyr	Thr	Ser	Glu
	1505						1510					1515			
75	Lys	Leu	Asp	His	Glu	Ala	Val	Ser	Pro	Ala	His	Leu	Thr	Val	Met
	1520						1525					1530			

	Val	Arg	Asp	Gln	Asp	Val	Pro	Val	Lys	Arg	Asn	Phe	Ala	Arg	Ile
	1535						1540					1545			
5	Val	Val	Asn	Val	Ser	Asp	Thr	Asn	Asp	His	Ala	Pro	Trp	Phe	Thr
	1550						1555					1560			
10	Ala	Ser	Ser	Tyr	Lys	Gly	Arg	Val	Tyr	Glu	Ser	Ala	Ala	Val	Gly
	1565						1570					1575			
15	Ser	Val	Val	Leu	Gln	Val	Thr	Ala	Leu	Asp	Lys	Asp	Lys	Gly	Lys
	1580						1585					1590			
20	Asn	Ala	Glu	Val	Leu	Tyr	Ser	Ile	Glu	Ser	Gly	Asn	Ile	Gly	Asn
	1595						1600					1605			
	Ile	Gly	Asn	Ser	Phe	Met	Ile	Asp	Pro	Val	Leu	Gly	Ser	Ile	Lys
	1610						1615					1620			
25	Thr	Ala	Lys	Glu	Leu	Asp	Arg	Ser	Asn	Gln	Ala	Glu	Tyr	Asp	Leu
	1625						1630					1635			
30	Met	Val	Lys	Ala	Thr	Asp	Lys	Gly	Ser	Pro	Pro	Met	Ser	Glu	Ile
	1640						1645					1650			
35	Thr	Ser	Val	Arg	Ile	Phe	Val	Thr	Ile	Ala	Asp	Asn	Ala	Ser	Pro
	1655						1660					1665			
	Lys	Phe	Thr	Ser	Lys	Glu	Tyr	Ser	Val	Glu	Leu	Ser	Glu	Thr	Val
	1670						1675					1680			
40	Ser	Ile	Gly	Ser	Phe	Val	Gly	Met	Val	Thr	Ala	His	Ser	Gln	Ser
	1685						1690					1695			
45	Ser	Val	Val	Tyr	Glu	Ile	Lys	Asp	Gly	Asn	Thr	Gly	Asp	Ala	Phe
	1700						1705					1710			
50	Asp	Ile	Asn	Pro	His	Ser	Gly	Thr	Ile	Ile	Thr	Gln	Lys	Ala	Leu
	1715						1720					1725			
55	Asp	Phe	Glu	Thr	Leu	Pro	Ile	Tyr	Thr	Leu	Ile	Ile	Gln	Gly	Thr
	1730						1735					1740			
	Asn	Met	Ala	Gly	Leu	Ser	Thr	Asn	Thr	Thr	Val	Leu	Val	His	Leu
	1745						1750					1755			
60	Gln	Asp	Glu	Asn	Asp	Asn	Ala	Pro	Val	Phe	Met	Gln	Ala	Glu	Tyr
	1760						1765					1770			

	Thr	Gly	Leu	Ile	Ser	Glu	Ser	Ala	Ser	Ile	Asn	Ser	Val	Val	Leu	
	1775						1780					1785				
5	Thr	Asp	Arg	Asn	Val	Pro	Leu	Val	Ile	Arg	Ala	Ala	Asp	Ala	Asp	
	1790						1795					1800				
10	Lys	Asp	Ser	Asn	Ala	Leu	Leu	Val	Tyr	His	Ile	Val	Glu	Pro	Ser	
	1805						1810					1815				
15	Val	His	Thr	Tyr	Phe	Ala	Ile	Asp	Ser	Ser	Thr	Gly	Ala	Ile	His	1820
	1825					1830										
	Thr	Val	Leu	Ser	Leu	Asp	Tyr	Glu	Glu	Thr	Ser	Ile	Phe	His	Phe	
	1835						1840					1845				
20	Thr	Val	Gln	Val	His	Asp	Met	Gly	Thr	Pro	Arg	Leu	Phe	Ala	Glu	
	1850						1855					1860				
25	Tyr	Ala	Ala	Asn	Val	Thr	Val	His	Val	Ile	Asp	Ile	Asn	Asp	Cys	
	1865						1870					1875				
30	Pro	Pro	Val	Phe	Ala	Lys	Pro	Leu	Tyr	Glu	Ala	Ser	Leu	Leu	Leu	
	1880						1885					1890				
35	Pro	Thr	Tyr	Lys	Gly	Val	Lys	Val	Ile	Thr	Val	Asn	Ala	Thr	Asp	
	1895						1900					1905				
	Ala	Asp	Ser	Ser	Ala	Phe	Ser	Gln	Leu	Ile	Tyr	Ser	Ile	Thr	Glu	
	1910						1915					1920				
40	Gly	Asn	Ile	Gly	Glu	Lys	Phe	Ser	Met	Asp	Tyr	Lys	Thr	Gly	Ala	
	1925						1930					1935				
45	Leu	Thr	Val	Gln	Asn	Thr	Thr	Gln	Leu	Arg	Ser	Arg	Tyr	Glu	Leu	
	1940						1945					1950				
50	Thr	Val	Arg	Ala	Ser	Asp	Gly	Arg	Phe	Ala	Gly	Leu	Thr	Ser	Val	
	1955						1960					1965				
55	Lys	Ile	Asn	Val	Lys	Glu	Ser	Lys	Glu	Ser	His	Leu	Lys	Phe	Thr	
	1970						1975					1980				
	Gln	Asp	Val	Tyr	Ser	Ala	Val	Val	Lys	Glu	Asn	Ser	Thr	Glu	Ala	
	1985						1990					1995				
60	Glu	Thr	Leu	Ala	Val	Ile	Thr	Ala	Ile	Gly	Ser	Pro	Ile	Asn	Glu	
	2000						2005					2010				

	Pro	Leu	Phe	Tyr	His	Ile	Leu	Asn	Pro	Asp	Arg	Arg	Phe	Lys	Ile
	2015						2020					2025			
5	Ser	Arg	Thr	Ser	Gly	Val	Leu	Ser	Thr	Thr	Gly	Thr	Pro	Phe	Asp
	2030						2035					2040			
10	Arg	Glu	Gln	Gln	Glu	Ala	Phe	Asp	Val	Val	Val	Glu	Val	Ile	Glu
	2045						2050					2055			
15	Glu	His	Lys	Pro	Ser	Ala	Val	Ala	His	Val	Val	Val	Lys	Val	Ile
	2060						2065					2070			
20	Val	Glu	Asp	Gln	Asn	Asp	Asn	Ala	Pro	Val	Phe	Val	Asn	Leu	Pro
	2075						2080					2085			
25	Tyr	Tyr	Ala	Val	Val	Lys	Val	Asp	Thr	Glu	Val	Gly	His	Val	Ile
	2090						2095					2100			
30	Arg	Tyr	Val	Thr	Ala	Val	Asp	Arg	Asp	Ser	Gly	Arg	Asn	Gly	Glu
	2105						2110					2115			
35	Val	His	Tyr	Tyr	Leu	Lys	Glu	His	His	Glu	His	Phe	Gln	Ile	Gly
	2120						2125					2130			
40	Pro	Leu	Gly	Glu	Ile	Ser	Leu	Lys	Lys	Gln	Phe	Glu	Leu	Asp	Thr
	2135						2140					2145			
45	Leu	Asn	Lys	Glu	Tyr	Leu	Val	Thr	Val	Val	Ala	Lys	Asp	Gly	Gly
	2150						2155					2160			
50	Asn	Pro	Ala	Phe	Ser	Ala	Glu	Val	Ile	Val	Pro	Ile	Thr	Val	Met
	2165						2170					2175			
55	Asn	Lys	Ala	Met	Pro	Val	Phe	Glu	Lys	Pro	Phe	Tyr	Ser	Ala	Glu
	2180						2185					2190			
60	Ile	Ala	Glu	Ser	Ile	Gln	Val	His	Ser	Pro	Val	Val	His	Val	Gln
	2195						2200					2205			
65	Ala	Asn	Ser	Pro	Glu	Gly	Leu	Lys	Val	Phe	Tyr	Ser	Ile	Thr	Asp
	2210						2215					2220			
70	Gly	Asp	Pro	Phe	Ser	Gln	Phe	Thr	Ile	Asn	Phe	Asn	Thr	Gly	Val
	2225						2230					2235			
75	Ile	Asn	Val	Ile	Ala	Pro	Leu	Asp	Phe	Glu	Ala	His	Pro	Ala	Tyr
	2240						2245					2250			

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	Lys	Leu	Ser	Ile	Arg	Ala	Thr	Asp	Ser	Leu	Thr	Gly	Ala	His	Ala
	2255						2260					2265			
5	Glu	Val	Phe	Val	Asp	Ile	Ile	Val	Asp	Asp	Ile	Asn	Asp	Asn	Pro
	2270						2275					2280			
10	Pro	Val	Phe	Ala	Gln	Gln	Ser	Tyr	Ala	Val	Thr	Leu	Ser	Glu	Ala
	2285						2290					2295			
15	Ser	Val	Ile	Gly	Thr	Ser	Val	Val	Gln	Val	Arg	Ala	Thr	Asp	Ser
	2300						2305					2310			
	Asp	Ser	Glu	Pro	Asn	Arg	Gly	Ile	Ser	Tyr	Gln	Met	Phe	Gly	Asn
	2315						2320					2325			
20	His	Ser	Lys	Ser	His	Asp	His	Phe	His	Val	Asp	Ser	Ser	Thr	Gly
	2330						2335					2340			
25	Leu	Ile	Ser	Leu	Leu	Arg	Thr	Leu	Asp	Tyr	Glu	Gln	Ser	Arg	Gln
	2345						2350					2355			
30	His	Thr	Ile	Phe	Val	Arg	Ala	Val	Asp	Gly	Gly	Met	Pro	Thr	Leu
	2360						2365					2370			
35	Ser	Ser	Asp	Val	Ile	Val	Thr	Val	Asp	Val	Thr	Asp	Leu	Asn	Gly
	2375						2380					2385			
	Asn	Pro	Pro	Leu	Phe	Glu	Gln	Gln	Ile	Tyr	Glu	Ala	Arg	Ile	Ser
	2390						2395					2400			
40	Glu	His	Ala	Pro	His	Gly	His	Phe	Val	Thr	Cys	Val	Lys	Ala	Tyr
	2405						2410					2415			
45	Asp	Ala	Asp	Ser	Ser	Asp	Ile	Asp	Lys	Leu	Gln	Tyr	Ser	Ile	Leu
	2420						2425					2430			
50	Ser	Gly	Asn	Asp	His	Lys	His	Phe	Val	Ile	Asp	Ser	Ala	Thr	Gly
	2435						2440					2445			
55	Ile	Ile	Thr	Leu	Ser	Asn	Leu	His	Arg	His	Ala	Leu	Lys	Pro	Phe
	2450						2455					2460			
	Tyr	Ser	Leu	Asn	Leu	Ser	Val	Ser	Asp	Gly	Val	Phe	Arg	Ser	Ser
	2465						2470					2475			
60	Thr	Gln	Val	His	Val	Thr	Val	Ile	Gly	Gly	Asn	Leu	His	Ser	Pro
	2480						2485					2490			

	Ala	Phe	Leu	Gln	Asn	Glu	Tyr	Glu	Val	Glu	Leu	Ala	Glu	Asn	Ala
	2495						2500					2505			
5	Pro	Leu	His	Thr	Leu	Val	Met	Glu	Val	Lys	Thr	Thr	Asp	Gly	Asp
	2510						2515					2520			
10	Ser	Gly	Ile	Tyr	Gly	His	Val	Thr	Tyr	His	Ile	Val	Asn	Asp	Phe
	2525						2530					2535			
15	Ala	Lys	Asp	Arg	Phe	Tyr	Ile	Asn	Glu	Arg	Gly	Gln	Ile	Phe	Thr
	2540						2545					2550			
	Leu	Glu	Lys	Leu	Asp	Arg	Glu	Thr	Pro	Ala	Glu	Lys	Val	Ile	Ser
	2555						2560					2565			
20	Val	Arg	Leu	Met	Ala	Lys	Asp	Ala	Gly	Gly	Lys	Val	Ala	Phe	Cys
	2570						2575					2580			
25	Thr	Val	Asn	Val	Ile	Leu	Thr	Asp	Asp	Asn	Asp	Asn	Ala	Pro	Gln
	2585						2590					2595			
30	Phe	Arg	Ala	Thr	Lys	Tyr	Glu	Val	Asn	Ile	Gly	Ser	Ser	Ala	Ala
	2600						2605					2610			
35	Lys	Gly	Thr	Ser	Val	Val	Lys	Ser	Ala	Ser	Asp	Ala	Asp	Glu	Gly
	2615						2620					2625			
	Ser	Asn	Ala	Asp	Ile	Thr	Tyr	Ala	Ile	Glu	Ala	Asp	Ser	Glu	Ser
	2630						2635					2640			
40	Val	Lys	Glu	Asn	Leu	Glu	Ile	Asn	Lys	Leu	Ser	Gly	Val	Ile	Thr
	2645						2650					2655			
45	Thr	Lys	Glu	Ser	Leu	Ile	Gly	Leu	Glu	Asn	Glu	Phe	Phe	Thr	Phe
	2660						2665					2670			
50	Phe	Val	Arg	Ala	Val	Asp	Asn	Gly	Ser	Pro	Ser	Lys	Glu	Ser	Val
	2675						2680					2685			
55	Val	Leu	Val	Tyr	Val	Lys	Ile	Leu	Pro	Pro	Glu	Met	Gln	Leu	Pro
	2690						2695					2700			
	Lys	Phe	Ser	Glu	Pro	Phe	Tyr	Thr	Phe	Thr	Val	Ser	Glu	Asp	Val
	2705						2710					2715			
60	Pro	Val	Gly	Thr	Glu	Ile	Asp	Leu	Ile	Arg	Ala	Glu	His	Ser	Gly
	2720						2725					2730			

	Thr	Val	Leu	Tyr	Ser	Leu	Val	Lys	Gly	Asn	Thr	Pro	Glu	Ser	Asn
	2735						2740					2745			
5	Arg	Asp	Glu	Ser	Phe	Val	Ile	Asp	Arg	Gln	Ser	Gly	Arg	Leu	Lys
	2750						2755					2760			
10	Leu	Glu	Lys	Ser	Leu	Asp	His	Glu	Thr	Thr	Lys	Trp	Tyr	Gln	Phe
	2765						2770					2775			
15	Ser	Ile	Leu	Ala	Arg	Cys	Thr	Gln	Asp	Asp	His	Glu	Met	Val	Ala
	2780						2785					2790			
20	Ser	Val	Asp	Val	Ser	Ile	Gln	Val	Lys	Asp	Ala	Asn	Asp	Asn	Ser
	2795						2800					2805			
25	Pro	Val	Phe	Glu	Ser	Ser	Pro	Tyr	Glu	Ala	Phe	Ile	Val	Glu	Asn
	2810						2815					2820			
30	Leu	Pro	Gly	Gly	Ser	Arg	Val	Ile	Gln	Ile	Arg	Ala	Ser	Asp	Ala
	2825						2830					2835			
35	Asp	Ser	Gly	Thr	Asn	Gly	Gln	Val	Met	Tyr	Ser	Leu	Asp	Gln	Ser
	2840						2845					2850			
40	Gln	Ser	Val	Glu	Val	Ile	Glu	Ser	Phe	Ala	Ile	Asn	Met	Glu	Thr
	2855						2860					2865			
45	Gly	Trp	Ile	Thr	Thr	Leu	Lys	Glu	Leu	Asp	His	Glu	Lys	Arg	Asp
	2870						2875					2880			
50	Asn	Tyr	Gln	Ile	Lys	Val	Val	Ala	Ser	Asp	His	Gly	Glu	Lys	Ile
	2885						2890					2895			
55	Gln	Leu	Ser	Ser	Thr	Ala	Ile	Val	Asp	Val	Thr	Val	Thr	Asp	Val
	2900						2905					2910			
60	Asn	Asp	Ser	Pro	Pro	Arg	Phe	Thr	Ala	Glu	Ile	Tyr	Lys	Gly	Thr
	2915						2920					2925			
65	Val	Ser	Glu	Asp	Asp	Pro	Gln	Gly	Gly	Val	Ile	Ala	Ile	Leu	Ser
	2930						2935					2940			
70	Thr	Thr	Asp	Ala	Asp	Ser	Glu	Glu	Ile	Asn	Arg	Gln	Val	Thr	Tyr
	2945						2950					2955			
75	Phe	Ile	Thr	Gly	Gly	Asp	Pro	Leu	Gly	Gln	Phe	Ala	Val	Glu	Thr
	2960						2965					2970			

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	Ile	Gln	Asn	Glu	Trp	Lys	Val	Tyr	Val	Lys	Lys	Pro	Leu	Asp	Arg
	2975						2980					2985			
5	Glu	Lys	Arg	Asp	Asn	Tyr	Leu	Leu	Thr	Ile	Thr	Ala	Thr	Asp	Gly
	2990						2995					3000			
10	Thr	Phe	Ser	Ser	Lys	Ala	Ile	Val	Glu	Val	Lys	Val	Leu	Asp	Ala
	3005						3010					3015			
15	Asn	Asp	Asn	Ser	Pro	Val	Cys	Glu	Lys	Thr	Leu	Tyr	Ser	Asp	Thr
	3020						3025					3030			
20	Ile	Pro	Glu	Asp	Val	Leu	Pro	Gly	Lys	Leu	Ile	Met	Gln	Ile	Ser
	3035						3040					3045			
25	Ala	Thr	Asp	Ala	Asp	Ile	Arg	Ser	Asn	Ala	Glu	Ile	Thr	Tyr	Thr
	3050						3055					3060			
30	Leu	Leu	Gly	Ser	Gly	Ala	Glu	Lys	Phe	Lys	Leu	Asn	Pro	Asp	Thr
	3065						3070					3075			
35	Gly	Glu	Leu	Lys	Thr	Ser	Thr	Pro	Leu	Asp	Arg	Glu	Glu	Gln	Ala
	3080						3085					3090			
40	Val	Tyr	His	Leu	Leu	Val	Arg	Ala	Thr	Asp	Gly	Gly	Gly	Arg	Phe
	3095						3100					3105			
45	Cys	Gln	Ala	Ser	Ile	Val	Val	Thr	Leu	Glu	Asp	Val	Asn	Asp	Asn
	3110						3115					3120			
50	Ala	Pro	Glu	Phe	Ser	Ala	Asp	Pro	Tyr	Ala	Ile	Thr	Val	Phe	Glu
	3125						3130					3135			
55	Asn	Thr	Glu	Pro	Gly	Thr	Leu	Leu	Thr	Arg	Val	Gln	Ala	Thr	Asp
	3140						3145					3150			
60	Ala	Asp	Ala	Gly	Leu	Asn	Arg	Lys	Ile	Leu	Tyr	Ser	Leu	Ile	Asp
	3155						3160					3165			
65	Ser	Ala	Asp	Gly	Gln	Phe	Ser	Ile	Asn	Glu	Leu	Ser	Gly	Ile	Ile
	3170						3175					3180			
70	Gln	Leu	Glu	Lys	Pro	Leu	Asp	Arg	Glu	Leu	Gln	Ala	Val	Tyr	Thr
	3185						3190					3195			
75	Leu	Ser	Leu	Lys	Ala	Val	Asp	Gln	Gly	Leu	Pro	Arg	Arg	Leu	Thr
	3200						3205					3210			

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	Ala	Thr	Gly	Thr	Val	Ile	Val	Ser	Val	Leu	Asp	Ile	Asn	Asp	Asn
	3215						3220					3225			
5	Pro	Pro	Val	Phe	Glu	Tyr	Arg	Glu	Tyr	Gly	Ala	Thr	Val	Ser	Glu
	3230						3235					3240			
10	Asp	Ile	Leu	Val	Gly	Thr	Glu	Val	Leu	Gln	Val	Tyr	Ala	Ala	Ser
	3245						3250					3255			
15	Arg	Asp	Ile	Glu	Ala	Asn	Ala	Glu	Ile	Thr	Tyr	Ser	Ile	Ile	Ser
	3260						3265					3270			
20	Gly	Asn	Glu	His	Gly	Lys	Phe	Ser	Ile	Asp	Ser	Lys	Thr	Gly	Ala
	3275						3280					3285			
25	Val	Phe	Ile	Ile	Glu	Asn	Leu	Asp	Tyr	Glu	Ser	Ser	His	Glu	Tyr
	3290						3295					3300			
30	Tyr	Leu	Thr	Val	Glu	Ala	Thr	Asp	Gly	Gly	Thr	Pro	Ser	Leu	Ser
	3305						3310					3315			
35	Asp	Val	Ala	Thr	Val	Asn	Val	Asn	Val	Thr	Asp	Ile	Asn	Asp	Asn
	3320						3325					3330			
40	Thr	Pro	Val	Phe	Ser	Gln	Asp	Thr	Tyr	Thr	Thr	Val	Ile	Ser	Glu
	3335						3340					3345			
45	Asp	Ala	Val	Leu	Glu	Gln	Ser	Val	Ile	Thr	Val	Met	Ala	Asp	Asp
	3350						3355					3360			
50	Ala	Asp	Gly	Pro	Ser	Asn	Ser	His	Ile	His	Tyr	Ser	Ile	Ile	Asp
	3365						3370					3375			
55	Gly	Asn	Gln	Gly	Ser	Ser	Phe	Thr	Ile	Asp	Pro	Val	Arg	Gly	Glu
	3380						3385					3390			
60	Val	Lys	Val	Thr	Lys	Leu	Leu	Asp	Arg	Glu	Thr	Ile	Ser	Gly	Tyr
	3395						3400					3405			
65	Thr	Leu	Thr	Val	Gln	Ala	Ser	Asp	Asn	Gly	Ser	Pro	Pro	Arg	Val
	3410						3415					3420			
70	Asn	Thr	Thr	Thr	Val	Asn	Ile	Asp	Val	Ser	Asp	Val	Asn	Asp	Asn
	3425						3430					3435			
75	Ala	Pro	Val	Phe	Ser	Arg	Gly	Asn	Tyr	Ser	Val	Ile	Ile	Gln	Glu
	3440						3445					3450			

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	Asn	Lys	Pro	Val	Gly	Phe	Ser	Val	Leu	Gln	Leu	Val	Val	Thr	Asp
	3455						3460					3465			
5	Glu	Asp	Ser	Ser	His	Asn	Gly	Pro	Pro	Phe	Phe	Phe	Thr	Ile	Val
	3470						3475					3480			
10	Thr	Gly	Asn	Asp	Glu	Lys	Ala	Phe	Glu	Val	Asn	Pro	Gln	Gly	Val
	3485						3490					3495			
15	Leu	Leu	Thr	Ser	Ser	Ala	Ile	Lys	Arg	Lys	Glu	Lys	Asp	His	Tyr
	3500						3505					3510			
20	Leu	Leu	Gln	Val	Lys	Val	Ala	Asp	Asn	Gly	Lys	Pro	Gln	Leu	Ser
	3515						3520					3525			
	Ser	Leu	Thr	Tyr	Ile	Asp	Ile	Arg	Val	Ile	Glu	Glu	Ser	Ile	Tyr
	3530						3535					3540			
25	Pro	Pro	Ala	Ile	Leu	Pro	Leu	Glu	Ile	Phe	Ile	Thr	Ser	Ser	Gly
	3545						3550					3555			
30	Glu	Glu	Tyr	Ser	Gly	Gly	Val	Ile	Gly	Lys	Ile	His	Ala	Thr	Asp
	3560						3565					3570			
35	Gln	Asp	Val	Tyr	Asp	Thr	Leu	Thr	Tyr	Ser	Leu	Asp	Pro	Gln	Met
	3575						3580					3585			
	Asp	Asn	Leu	Phe	Ser	Val	Ser	Ser	Thr	Gly	Gly	Lys	Leu	Ile	Ala
	3590						3595					3600			
40	His	Lys	Lys	Leu	Asp	Ile	Gly	Gln	Tyr	Leu	Leu	Asn	Val	Ser	Val
	3605						3610					3615			
45	Thr	Asp	Gly	Lys	Phe	Thr	Thr	Val	Ala	Asp	Ile	Thr	Val	His	Ile
	3620						3625					3630			
50	Arg	Gln	Val	Thr	Gln	Glu	Met	Leu	Asn	His	Thr	Ile	Ala	Ile	Arg
	3635						3640					3645			
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	3650						3655					3660			
	Asn	Phe	Gln	Arg	Ala	Leu	Arg	Asn	Ile	Leu	Gly	Val	Arg	Arg	Asn
	3665						3670					3675			
60	Asp	Ile	Gln	Ile	Val	Ser	Leu	Gln	Ser	Ser	Glu	Pro	His	Pro	His
	3680						3685					3690			

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	3695		3700	3705	
5	Ser Thr	Lys Gln Leu Leu His	Lys Ile Asn Ser Ser	Val Thr Asp	
	3710		3715	3720	
10	Ile Glu	Glu Ile Ile Gly Val	Arg Ile Leu Asn Val	Phe Gln Lys	
	3725		3730	3735	
15	Leu Cys	Ala Gly Leu Asp Cys	Pro Trp Lys Phe Cys	Asp Glu Lys	3740
	3745		3750		
20	Val Ser	Val Asp Glu Ser Val	Met Ser Thr His Ser	Thr Ala Arg	
	3755		3760	3765	
25	Leu Ser	Phe Val Thr Pro Arg	His His Arg Ala Ala	Val Cys Leu	
	3770		3775	3780	
30	Cys Lys	Glu Gly Arg Cys Pro	Pro Val His His Gly	Cys Glu Asp	
	3785		3790	3795	
35	Asp Pro	Cys Pro Glu Gly Ser	Glu Cys Val Ser Asp	Pro Trp Glu	
	3800		3805	3810	
40	Glu Lys	His Thr Cys Val Cys	Pro Ser Gly Arg Phe	Gly Gln Cys	
	3815		3820	3825	
45	Pro Gly	Ser Ser Ser Met Thr	Leu Thr Gly Asn Ser	Tyr Val Lys	
	3830		3835	3840	
50	Tyr Arg	Leu Thr Glu Asn Glu	Asn Lys Leu Glu Met	Lys Leu Thr	
	3845		3850	3855	
55	Met Arg	Leu Arg Thr Tyr Ser	Thr His Ala Val Val	Met Tyr Ala	
	3860		3865	3870	
60	Arg Gly	Thr Asp Tyr Ser Ile	Leu Glu Ile His His	Gly Arg Leu	
	3875		3880	3885	
	Gln Tyr	Lys Phe Asp Cys Gly	Ser Gly Pro Gly Ile	Val Ser Val	
	3890		3895	3900	
	Gln Ser	Ile Gln Val Asn Asp	Gly Gln Trp His Ala	Val Ala Leu	
	3905		3910	3915	
	Glu Val	Asn Gly Asn Tyr Ala	Arg Leu Val Leu Asp	Gln Val His	
	3920		3925	3930	

Thr Ala Ser Gly Thr Ala Pro Gly Thr Leu Lys Thr Leu Asn Leu
 3935 3940 3945

5 Asp Asn Tyr Val Phe Phe Gly Gly His Ile Arg Gln Gln Gly Thr
 3950 3955 3960

10 Arg His Gly Arg Ser Pro Gln Val Gly Asn Gly Phe Arg Gly Cys
 3965 3970 3975

15 Met Asp Ser Ile Tyr Leu Asn Gly Gln Glu Leu Pro Leu Asn Ser
 3980 3985 3990

20 Lys Pro Arg Ser Tyr Ala His Ile Glu Glu Ser Val Asp Val Ser
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Pro Gly Cys Phe Leu Thr Ala Thr Glu Asp Cys Ala Ser Asn Pro
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25 Cys Gln Asn Gly Gly Val Cys Asn Pro Ser Pro Ala Gly Gly Tyr
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30 Tyr Cys Lys Cys Ser Ala Leu Tyr Ile Gly Thr His Cys Glu Ile
 4040 4045 4050

35 Ser Val Asn Pro Cys Ser Ser Asn Pro Cys Leu Tyr Gly Gly Thr
 4055 4060 4065

Cys Val Val Asp Asn Gly Gly Phe Val Cys Gln Cys Arg Gly Leu
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40 Tyr Thr Gly Gln Arg Cys Gln Leu Ser Pro Tyr Cys Lys Asp Glu
 4085 4090 4095

45 Pro Cys Lys Asn Gly Gly Thr Cys Phe Asp Ser Leu Asp Gly Ala
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50 Val Cys Gln Cys Asp Ser Gly Phe Arg Gly Glu Arg Cys Gln Ser
 4115 4120 4125

55 Asp Ile Asp Glu Cys Ser Gly Asn Pro Cys Leu His Gly Ala Leu
 4130 4135 4140

Cys Glu Asn Thr His Gly Ser Tyr His Cys Asn Cys Ser His Glu
 4145 4150 4155

60 Tyr Arg Gly Arg His Cys Glu Asp Ala Ala Pro Asn Gln Tyr Val
 4160 4165 4170

Ser Thr Pro Trp Asn Ile Gly Leu Ala Glu Gly Ile Gly Ile Val
 4175 4180 4185
 5 Val Phe Val Ala Gly Ile Phe Leu Leu Val Val Val Phe Val Leu
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 10 Cys Arg Lys Met Ile Ser Arg Lys Lys Lys His Gln Ala Glu Pro
 4205 4210 4215
 15 Lys Asp Lys His Leu Gly Pro Ala Thr Ala Phe Leu Gln Arg Pro
 4220 4225 4230
 20 Tyr Phe Asp Ser Lys Leu Asn Lys Asn Ile Tyr Ser Asp Ile Pro
 4235 4240 4245
 25 Ser Asp Ser Arg Asn Asn Leu Asp Arg Asn Ser Phe Glu Gly Ser
 4265 4270 4275
 30 Ala Ile Pro Glu His Pro Glu Phe Ser Thr Phe Asn Pro Glu Ser
 4280 4285 4290
 35 Val His Gly His Arg Lys Ala Val Ala Val Cys Ser Val Ala Pro
 4295 4300 4305
 40 Asn Leu Pro Pro Pro Pro Pro Ser Asn Ser Pro Ser Asp Ser Asp
 4310 4315 4320
 45 Val Asp Leu Asp Pro Cys Leu Ser Lys Lys Pro Leu Glu Glu Lys
 4340 4345 4350
 50 Pro Ser Gln Pro Tyr Ser Ala Arg Glu Ser Leu Ser Glu Val Gln
 4355 4360 4365
 55 Ser Leu Ser Ser Phe Gln Ser Glu Ser Cys Asp Asp Asn Gly Tyr
 4370 4375 4380
 60 His Trp Asp Thr Ser Asp Trp Met Pro Ser Val Pro Leu Pro Asp
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 Ile Gln Glu Phe Pro Asn Tyr Glu Val Ile Asp Glu Gln Thr Pro
 4400 4405 4410

Leu Tyr Ser Ala Asp Pro Asn Ala Ile Asp Thr Asp Tyr Tyr Pro
 4415 4420 4425
 5 Gly Gly Tyr Asp Ile Glu Ser Asp Phe Pro Pro Pro Pro Glu Asp
 4430 4435 4440
 10 Phe Pro Ala Ala Asp Glu Leu Pro Pro Leu Pro Pro Glu Phe Ser
 4445 4450 4455
 15 Asn Gln Phe Glu Ser Ile His Pro Pro Arg Asp Met Pro Ala Ala
 4460 4465 4470
 Gly Ser Leu Gly Ser Ser Ser Arg Asn Arg Gln Arg Phe Asn Leu
 4475 4480 4485
 20 Asn Gln Tyr Leu Pro Asn Phe Tyr Pro Leu Asp Met Ser Glu Pro
 4490 4495 4500
 25 Gln Thr Lys Gly Thr Gly Glu Asn Ser Thr Cys Arg Glu Pro His
 4505 4510 4515
 30 Ala Pro Tyr Pro Pro Gly Tyr Gln Arg His Phe Glu Ala Pro Ala
 4520 4525 4530
 35 Val Glu Ser Met Pro Met Ser Val Tyr Ala Ser Thr Ala Ser Cys
 4535 4540 4545
 Ser Asp Val Ser Ala Cys Cys Glu Val Glu Ser Glu Val Met Met
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 acgcgcgagc ccggcgaggc cccggcaggc ccgtccctgc tcggggggcgc gctgagacgg 120

	cgggtgagct ccacgagagc gccgtcgcca cttcggggcca actttgcgat tcccgcacagt	180
	taagca atg ggg aga cat ttg gct ttg ctc ctg ctt ctg ctc ctt ctc	228
5	Met Gly Arg His Leu Ala Leu Leu Leu Leu Leu Leu Leu	
	1 5 10	
	ttc caa cat ttt gga gac agt gat ggc agc caa cga ctt gaa cag act	276
	Phe Gln His Phe Gly Asp Ser Asp Gly Ser Gln Arg Leu Glu Gln Thr	
10	15 20 25 30	
	cct ctg cag ttt aca cac ctc gag tac aac gtc acc gtg cag gag aac	324
	Pro Leu Gln Phe Thr His Leu Glu Tyr Asn Val Thr Val Gln Glu Asn	
	35 40 45	
15	tct gca gct aag act tat gtg ggg cat cct gtc aag atg ggt gtt tac	372
	Ser Ala Ala Lys Thr Tyr Val Gly His Pro Val Lys Met Gly Val Tyr	
	50 55 60	
20	att aca cat cca gcg tgg gaa gta agg tac aaa att gtt tcc gga gac	420
	Ile Thr His Pro Ala Trp Glu Val Arg Tyr Lys Ile Val Ser Gly Asp	
	65 70 75	
	agt gaa aac ctg ttc aaa gct gaa gag tac att ctc gga gac ttt tgc	468
25	Ser Glu Asn Leu Phe Lys Ala Glu Glu Tyr Ile Leu Gly Asp Phe Cys	
	80 85 90	
	ttt cta aga ata agg acc aaa gga gga aat aca gct att ctt aat aga	516
	Phe Leu Arg Ile Arg Thr Lys Gly Gly Asn Thr Ala Ile Leu Asn Arg	
30	95 100 105 110	
	gaa gtg aag gat cac tac aca ttg ata gtg aaa gca ctt gaa aaa aat	564
	Glu Val Lys Asp His Tyr Thr Leu Ile Val Lys Ala Leu Glu Lys Asn	
	115 120 125	
35	act aat gtg gag gcg cga aca aag gtc agg gtg cag gtg ctg gat aca	612
	Thr Asn Val Glu Ala Arg Thr Lys Val Arg Val Gln Val Leu Asp Thr	
	130 135 140	
40	aat gac ttg aga ccg tta ttc tca ccc acc tca tac agc gtt tct tta	660
	Asn Asp Leu Arg Pro Leu Phe Ser Pro Thr Ser Tyr Ser Val Ser Leu	
	145 150 155	
	cct gaa aac aca gct ata agg acc agt atc gca aga gtc agc gcc acg	708
45	Pro Glu Asn Thr Ala Ile Arg Thr Ser Ile Ala Arg Val Ser Ala Thr	
	160 165 170	
	gat gca gac ata gga acc aac ggg gaa ttt tac tac agt ttt aaa gat	756
	Asp Ala Asp Ile Gly Thr Asn Gly Glu Phe Tyr Tyr Ser Phe Lys Asp	
50	175 180 185 190	
	cga aca gat atg ttt gct att cac cca acc agt ggt gtg ata gtg tta	804
	Arg Thr Asp Met Phe Ala Ile His Pro Thr Ser Gly Val Ile Val Leu	
	195 200 205	
55	act ggt aga ctt gat tac cta gag acc aag ctc tat gag atg gaa atc	852
	Thr Gly Arg Leu Asp Tyr Leu Glu Thr Lys Leu Tyr Glu Met Glu Ile	
	210 215 220	
60	ctc gct gcg gac cgt ggc atg aag ttg tat ggg agc agt ggc atc agc	900
	Leu Ala Ala Asp Arg Gly Met Lys Leu Tyr Gly Ser Ser Gly Ile Ser	
	225 230 235	
	agc atg gcc aag cta acg gtg cac atc gaa cag gcc aat gaa tgt gct	948
	Ser Met Ala Lys Leu Thr Val His Ile Glu Gln Ala Asn Glu Cys Ala	

	240	245	250	
5	ccg gtg ata aca gca gtg aca ttg tca cca tca gaa ctg gac agg gac Pro Val Ile Thr Ala Val Thr Leu Ser Pro Ser Glu Leu Asp Arg Asp 255 260 265 270			996
10	cca gca tat gca att gtg aca gtg gat gac tgc gat cag ggt gcc aat Pro Ala Tyr Ala Ile Val Thr Val Asp Cys Asp Gln Gly Ala Asn 275 280 285			1044
15	ggt gac ata gca tct tta agc atc gtg gca ggt gac ctt ctc cag cag Gly Asp Ile Ala Ser Leu Ser Ile Val Ala Gly Asp Leu Leu Gln Gln 290 295 300			1092
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25	gcc atc ggt gac att gat tgg gac agt cat cct ttc ggc tac aat ctc Ala Ile Gly Asp Ile Asp Trp Asp Ser His Pro Phe Gly Tyr Asn Leu 320 325 330			1188
30	aca cta cag gct aaa gat aaa gga act ccg ccc cag ttc tct tct gtt Thr Leu Gln Ala Lys Asp Lys Gly Thr Pro Pro Gln Phe Ser Ser Val 335 340 345 350			1236
35	aaa gtc att cac gtg act tct cca cag ttc aaa gcc ggg cca gtc aag Lys Val Ile His Val Thr Ser Pro Gln Phe Lys Ala Gly Pro Val Lys 355 360 365			1284
40	ttt gaa aag gat gtt tac aga gca gaa ata agt gaa ttt gct cct ccc Phe Glu Lys Asp Val Tyr Arg Ala Glu Ile Ser Glu Phe Ala Pro Pro 370 375 380			1332
45	aac aca cct gtg gtc atg gta aag gcc att cct gct tat tcc cat ttg Asn Thr Pro Val Val Met Val Lys Ala Ile Pro Ala Tyr Ser His Leu 385 390 395			1380
50	agg tat gtt ttt aaa agg aca cct gga aaa gct aaa ttc agt tta aat Arg Tyr Val Phe Lys Arg Thr Pro Gly Lys Ala Lys Phe Ser Leu Asn 400 405 410			1428
55	tac aac act ggt ctc att tct att tta gaa cca gtt aaa aga cag cag Tyr Asn Thr Gly Leu Ile Ser Ile Leu Glu Pro Val Lys Arg Gln Gln 415 420 425 430			1476
60	gca gcc cat ttt gaa ctt gaa gta aca aca agt gac aga aaa gcg tcc Ala Ala His Phe Glu Leu Glu Val Thr Thr Ser Asp Arg Lys Ala Ser 435 440 445			1524
65	acc aag gtc ttg gtg aaa gtc tta ggt gca aat agc aat ccc cct gaa Thr Lys Val Leu Val Lys Val Leu Gly Ala Asn Ser Asn Pro Pro Glu 450 455 460			1572
70	ttt acc cag aca gcg tac aaa gct gct ttt gat gag aac gtg ccc att Phe Thr Gln Thr Ala Tyr Lys Ala Ala Phe Asp Glu Asn Val Pro Ile 465 470 475			1620
75	ggt act act atc atg agc ctg agt gcc gta gac cct gat gag ggt gag Gly Thr Thr Ile Met Ser Leu Ser Ala Val Asp Pro Asp Glu Gly Glu 480 485 490			1668
80	aat ggg tac gtg aca tac agt atc gca aat tta aat cat gtg ccg ttt Asn Gly Tyr Val Thr Tyr Ser Ile Ala Asn Leu Asn His Val Pro Phe			1716

	495		500		505		510	
5	gcg att gac cat ttc act ggt gcc gtg agt acg tca gaa aac ctg gac Ala Ile Asp His Phe Thr Gly Ala Val Ser Thr Ser Glu Asn Leu Asp	1764						
			515		520		525	
10	tac gaa ctg atg cct cgg gtt tat act ctg agg att cgt gca tca gac Tyr Glu Leu Met Pro Arg Val Tyr Thr Leu Arg Ile Arg Ala Ser Asp	1812						
			530		535		540	
	tgg ggc ttg ccg tac cgc cgg gaa gtc gaa gtc ctt gct aca att act Trp Gly Leu Pro Tyr Arg Arg Glu Val Glu Val Leu Ala Thr Ile Thr	1860						
			545		550		555	
15	ctc aat aac ttg aat gac aac aca cct ttg ttt gag aaa ata aat tgt Leu Asn Asn Leu Asn Asp Asn Thr Pro Leu Phe Glu Lys Ile Asn Cys	1908						
			560		565		570	
20	gaa ggg aca att ccc aga gat cta ggc gtg gga gag caa ata acc act Glu Gly Thr Ile Pro Arg Asp Leu Gly Val Gly Glu Gln Ile Thr Thr	1956						575
			580		585		590	
25	gtt tct gct att gat gca gat gaa ctt cag ttg gta cag tat cag att Val Ser Ala Ile Asp Ala Asp Glu Leu Gln Leu Val Gln Tyr Gln Ile	2004						
			595		600		605	
30	gaa gct gga aat gaa ctg gat ttg ttt agt tta aac ccc aac tcg ggg Glu Ala Gly Asn Glu Leu Asp Leu Phe Ser Leu Asn Pro Asn Ser Gly	2052						
			610		615		620	
	gta ttg tca tta aag cga tcg cta atg gat ggc tta ggt gca aag gtg Val Leu Ser Leu Lys Arg Ser Leu Met Asp Gly Leu Gly Ala Lys Val	2100						
			625		630		635	
35	tct ttc cac agt ctg aga atc aca gct aca gat gga gaa aat ttt gcc Ser Phe His Ser Leu Arg Ile Thr Ala Thr Asp Gly Glu Asn Phe Ala	2148						
			640		645		650	
40	aca cca tta tat atc aac ata aca gtg gct gcc agt cac aag ctg gta Thr Pro Leu Tyr Ile Asn Ile Thr Val Ala Ala Ser His Lys Leu Val	2196						
			655		660		665	
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			675		680		685	
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			690		695		700	
	ttc ttc gat tct cac tct gtc aat gct cac ata ccg cag ttt aga agc Phe Phe Asp Ser His Ser Val Asn Ala His Ile Pro Gln Phe Arg Ser	2340						
			705		710		715	
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			735		740		745	
	aaa ctg gtc tat gct gtt tct gga gga aat gag gat agt tgc ttc atg Lys Leu Val Tyr Ala Val Ser Gly Gly Asn Glu Asp Ser Cys Phe Met	2484						

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10	gaa aca aca gac aaa tac acc ctg aat att acc gtc tat gac ctt ggg Glu Thr Thr Asp Lys Tyr Thr Leu Asn Ile Thr Val Tyr Asp Leu Gly 785 790 795			2580
15	ata ccc cag aag gct gcg tgg cgt ctt cta cat gtc gtg gtt gtc gat Ile Pro Gln Lys Ala Ala Trp Arg Leu Leu His Val Val Val Val Asp 800 805 810			2628
20	gcc aat gat aat cca ccc gag ttt tta cag gag agc tat ttt gtg gaa Ala Asn Asp Asn Pro Pro Glu Phe Leu Gln Glu Ser Tyr Phe Val Glu 815 820 825 830			2676
25	gtg agt gaa gac aag gag gta cat agt gaa atc atc cag gtt gaa gcc Val Ser Glu Asp Lys Glu Val His Ser Glu Ile Ile Gln Val Glu Ala 835 840 845			2724
30	aca gat aaa gac ctg ggg ccc aac gga cac gtg acg tac tca att ctt Thr Asp Lys Asp Leu Gly Pro Asn Gly His Val Thr Tyr Ser Ile Leu 850 855 860			2772
35	aca gac aca gac aca ttt tca att gac agc gtg acg ggt gtt gtt aac Thr Asp Thr Asp Thr Phe Ser Ile Asp Ser Val Thr Gly Val Val Asn 865 870 875			2820
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45	att gag gcc agg gac caa gcc aga gaa gag cct cag ctg ttc tcc act Ile Glu Ala Arg Asp Gln Ala Arg Glu Glu Pro Gln Leu Phe Ser Thr 895 900 905 910			2916
50	gtc gtt gtg aaa gta tca cta gaa gat gtt aat gac aac cca cct aca Val Val Val Lys Val Ser Leu Glu Asp Val Asn Asp Asn Pro Pro Thr 915 920 925			2964
55	ttt att cca cct aat tat cgt gtg aaa gtc cga gag gat ctt cca gaa Phe Ile Pro Pro Asn Tyr Arg Val Lys Val Arg Glu Asp Leu Pro Glu 930 935 940			3012
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65	tct ggt cag gtg aga tac agc ctt ctg gac cac gga gaa gga aac ttc Ser Gly Gln Val Arg Tyr Ser Leu Leu Asp His Gly Glu Gly Asn Phe 960 965 970			3108
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	1040	1045	1050	
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	1070	1075	1080	
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	1085	1090	1095	
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	1115	1120	1125	
30	ata gag gtt gag Ile Glu Val	gat gtc aat gac aat Asp Val Asn Asp Asn	gca cca cag aca tca gag Ala Pro Gln Thr Ser Glu	3609 Glu
	1130	1135	1140	
35	cct gtt tat tac Pro Val Tyr	cca gaa atc atg gaa Pro Glu Ile Met Glu	aat tct cct aaa gat gta Asn Ser Pro Lys Asp Val	3654 Val
	1145	1150	1155	
40	tct gtg gtc cag Ser Val Val	atc gag gca ttt gat Ile Glu Ala Phe Asp	cca gat tog agc tct aat Pro Asp Ser Ser Ser Asn	3699 Asn
	1160	1165	1170	
45	gac aag ctc atg Asp Lys Leu	tac aaa att aca agt Tyr Lys Ile Thr Ser	gga aat cca caa gga ttc Gly Asn Pro Gln Gly Phe	3744 Phe
	1175	1180	1185	
50	ttt tca ata cat Phe Ser Ile	cct aaa aca ggt ctc Pro Lys Thr Gly Leu	atc aca act acg tca agg Ile Thr Thr Thr Ser Arg	3789 Arg
	1190	1195	1200	
	aag cta gac cga Lys Leu Asp	gaa cag caa gat gaa Glu Gln Gln Asp Glu	cac ata tta gag gtt act His Ile Leu Glu Val Thr	3834 Thr
	1205	1210	1215	
55	gtg aca gac aat Val Thr Asp	ggg agt ccc ccc aaa Gly Ser Pro Pro Lys	tca acc att gca aga gtc Ser Thr Ile Ala Arg Val	3879 Val
	1220	1225	1230	
60	att gtg aaa atc Ile Val Lys	ctt gat gaa aat gac Leu Asp Glu Asn Asp	aac aaa cct cag ttt ctg Asn Lys Pro Gln Phe Leu	3924 Leu
	1235	1240	1245	
	caa aag ttc tac Gln Lys Phe	aaa atc aga ctc cct Lys Ile Arg Leu Pro	gag cgg gaa aag cca gac Glu Arg Glu Lys Pro Asp	3969 Asp

				1250					1255					1260			
5	cga Arg	gaa Glu	aga Arg	aat Asn 1265	gcc Ala	aga Arg	cgg Arg	gag Glu	ccg Pro 1270	ctc Leu	tat Tyr	cgc Arg	gtc Val	ata Ile 1275	gcc Ala	4014	
10	acc Thr	gac Asp	aag Lys	gat Asp 1280	gag Glu	ggc Gly	ccc Pro	aat Asn	gca Ala 1285	gaa Glu	atc Ile	tcc Ser	tac Tyr	agc Ser 1290	atc Ile	4059	
15	gaa Glu	gac Asp	ggg Gly	aat Asn 1295	gag Glu	cat His	ggc Gly	aaa Lys	ttt Phe 1300	ttc Phe	atc Ile	gaa Glu	ccg Pro	aaa Lys 1305	act Thr	4104	
20	gga Gly	gtg Val	gtt Val	tcg Ser 1310	tcc Ser	aag Lys	agg Arg	ttt Phe	tca Ser 1315	gca Ala	gct Ala	gga Gly	gaa Glu	tat Tyr 1320	gat Asp	4149	
25	att Ile 1325	ctt Leu	tca Ser	att Ile	aag Lys 1330	gca Ala	gtt Val	gac Asp	aat Asn	ggg Gly	cgc Arg 1335	cct Pro	caa Gln	aag Lys	tca Ser	4194	
30	tca Ser	acc Thr	acc Thr	aga Arg 1340	ctc Leu	cat His	att Ile	gaa Glu	tgg Trp 1345	atc Ile	tcc Ser	aag Lys	ccc Pro	aaa Lys 1350	cag Gln	4239	
35	tcc Ser	ctg Leu	gag Glu	ccc Pro 1355	att Ile	tca Ser	ttt Phe	gaa Glu	gaa Glu 1360	tca Ser	ttt Phe	ttt Phe	acc Thr	ttt Phe 1365	act Thr	4284	
40	gtg Val	atg Met	gaa Glu	agt Ser 1370	gac Asp	ccc Pro	gtt Val	gct Ala	cac His 1375	atg Met	att Ile	gga Gly	gta Val	ata Ile 1380	tct Ser	4329	
45	gtg Val	gag Glu	cct Pro	cct Pro 1385	ggc Gly	ata Ile	ccc Pro	ott Leu	tgg Trp 1390	ttt Phe	gac Asp	atc Ile	act Thr	ggg Gly 1395	ggc Gly	4374	
50	aac Asn	tac Tyr	gac Asp	agt Ser 1400	cac His	ttc Phe	gat Asp	gtg Val	gac Asp 1405	aag Lys	gga Gly	act Thr	gga Gly	acc Thr 1410	atc Ile	4419	
55	att Ile	gtt Val	gcc Ala	aaa Lys 1415	cct Pro	ctt Leu	gat Asp	gca Ala	gaa Glu 1420	cag Gln	aag Lys	tca Ser	aac Asn	tac Tyr 1425	aac Asn	4464	
60	ctc Leu	aca Thr	gtc Val	gag Glu 1430	gct Ala	aca Thr	gat Asp	gga Gly	acc Thr 1435	acc Thr	act Thr	atc Ile	ctc Leu	act Thr 1440	cag Gln	4509	
65	gta Val	ttc Phe	atc Ile	aaa Lys 1445	gta Val	ata Ile	gac Asp	aca Thr	aat Asn 1450	gac Asp	cat His 1455	cgt Arg	cct Pro	cag Gln	ttt Phe	4554	
70	tct Ser	aca Thr	tca Ser	aag Lys 1460	tat Tyr	gaa Glu	gtt Val	gtt Val	att Ile 1465	cct Pro	gaa Glu	gat Asp	aca Thr	gcg Ala 1470	cca Pro	4599	
75	gaa Glu	aca Thr	gaa Glu	att Ile 1475	ttg Leu	caa Gln	atc Ile	agt Ser	gct Ala 1480	gtg Val	gat Asp	cag Gln	gat Asp	gag Glu 1485	aaa Lys	4644	
80	aac Asn	aaa Lys	cta Leu	atc Ile	tac Tyr	act Thr	ctg Leu	cag Gln	agc Ser	agt Ser	aga Arg	gat Asp	cca Pro	ctg Leu	agt Ser	4689	

		1490		1495		1500	
5	ctc aag aaa ttt	cgt ctt gat cct	gca acc ggc tct ctc	tat act	4734		
	Leu Lys Lys Phe	Arg Leu Asp Pro	Ala Thr Gly Ser Leu	Tyr Thr			
	1505		1510	1515			
10	tct gag aaa ctg	gat cat gaa gct gtt	tca cca gca cac ctc	acg	4779		
	Ser Glu Lys Leu	Asp His Glu Ala	Val Ser Pro Ala His	Leu Thr			
	1520		1525	1530			
15	gtc atg gta cga	gat caa gat gtg	cct gta aaa cgc aac	ttt gca	4824		
	Val Met Val Arg	Asp Gln Asp Val	Pro Val Lys Arg Asn	Phe Ala			
	1535		1540	1545			
20	agg att gtg gtc	aat gtc agc gac	acg aat gac cac gcc	ccg tgg	4869		
	Arg Ile Val Val	Asn Val Ser Asp	Thr Asn Asp His Ala	Pro Trp			
	1550		1555	1560			
25	ttc acc gct tcc	tcc tac aaa ggg	cgg gtt tat gaa tcg	gca gcc	4914		
	Phe Thr Ala Ser	Ser Tyr Lys Gly	Arg Val Tyr Glu Ser	Ala Ala			
	1565	1570	1575				
30	gtt ggc tca gtt	gtg ttg cag gtg	acg gct ctg gac aag	gac aaa	4959		
	Val Gly Ser Val	Val Leu Gln Val	Thr Ala Leu Asp Lys	Asp Lys			
	1580		1585	1590			
35	ggg aaa aat gct	gaa gtg ctg tac	tcg atc gag tca gga	aat att	5004		
	Gly Lys Asn Ala	Glu Val Leu Tyr	Ser Ile Glu Ser Gly	Asn Ile			
	1595		1600	1605			
40	gga aat att gga	aat tct ttt atg	att gat cct gtc ttg	ggc tct	5049		
	Gly Asn Ile Gly	Asn Ser Phe Met	Ile Asp Pro Val Leu	Gly Ser			
	1610		1615	1620			
45	att aaa act gcc	aaa gaa tta gat	cga agt aac caa gcg	gag tat	5094		
	Ile Lys Thr Ala	Lys Glu Leu Asp	Arg Ser Asn Gln Ala	Glu Tyr			
	1625		1630	1635			
50	gat tta atg gta	aaa gct aca gat	aag ggc agt cca cca	atg agt	5139		
	Asp Leu Met Val	Lys Ala Thr Asp	Lys Gly Ser Pro Pro	Met Ser			
	1640		1645	1650			
55	gaa ata act tct	gtg cgt atc ttt	gtc aca att gct gac	aac gcc	5184		
	Glu Ile Thr Ser	Val Arg Ile Phe	Val Thr Ile Ala Asp	Asn Ala			
	1655		1660	1665			
60	tct ccg aag ttt	aca tca aaa gaa	tat tct gtt gaa ctt	agt gaa	5229		
	Ser Pro Lys Phe	Thr Ser Lys Glu	Tyr Ser Val Glu Leu	Ser Glu			
	1670		1675	1680			
65	act gtc agc att	ggg agt ttc gtg	ggg atg gtt aca gcc	cat agt	5274		
	Thr Val Ser Ile	Gly Ser Phe Val	Gly Met Val Thr Ala	His Ser			
	1685	1690	1695				
70	caa tca tca gtg	gtg tat gaa ata	aaa gat gga aat aca	ggg gat	5319		
	Gln Ser Ser Val	Val Tyr Glu Ile	Lys Asp Gly Asn Thr	Gly Asp			
	1700		1705	1710			
75	gct ttt gat att	aat cca cat tct	gga act atc atc act	cag aaa	5364		
	Ala Phe Asp Ile	Asn Pro His Ser	Gly Thr Ile Ile Thr	Gln Lys			
	1715		1720	1725			
80	gcc ctg gac ttt	gaa act ttg ccc	att tac aca ttg ata	ata caa	5409		
	Ala Leu Asp Phe	Glu Thr Leu Pro	Ile Tyr Thr Leu Ile	Ile Gln			

	1730								1735								1740								
5	gga	act	aac	atg	gct	ggt	ttg	tcc	act	aat	aca	acg	gtt	cta	gtt		5454								
	Gly	Thr	Asn	Met	Ala	Gly	Leu	Ser	Thr	Asn	Thr	Thr	Val	Leu	Val										
	1745								1750								1755								
10	cac	ttg	cag	gat	gag	aat	gac	aac	gcg	cca	gtt	ttt	atg	cag	gca		5499								
	His	Leu	Gln	Asp	Glu	Asn	Asp	Asn	Ala	Pro	Val	Phe	Met	Gln	Ala										
	1760								1765								1770								
15	gaa	tat	aca	gga	ctc	att	agt	gaa	tca	gcc	tca	att	aac	agc	gtg		5544								
	Glu	Tyr	Thr	Gly	Leu	Ile	Ser	Glu	Ser	Ala	Ser	Ile	Asn	Ser	Val										
	1775								1780								1785								
20	gtc	cta	aca	gac	agg	aat	gtc	cca	ctg	gtg	att	cga	gca	gct	gat		5589								
	Val	Leu	Thr	Asp	Arg	Asn	Val	Pro	Leu	Val	Ile	Arg	Ala	Ala	Asp										
	1790								1795								1800								
25	gct	gat	aaa	gac	tca	aat	gct	ttg	ctt	gta	tat	cac	att	gtt	gaa		5634								
	Ala	Asp	Lys	Asp	Ser	Asn	Ala	Leu	Leu	Val	Tyr	His	Ile	Val	Glu										
	1805								1810								1815								
30	cca	tct	gta	cac	aca	tat	ttt	gct	att	gat	tct	agc	act	ggg	gct		5679								
	Pro	Ser	Val	His	Thr	Tyr	Phe	Ala	Ile	Asp	Ser	Ser	Thr	Gly	Ala										
	1820								1825								1830								
35	att	cat	aca	gta	cta	agt	ctg	gac	tat	gaa	gaa	aca	agt	att	ttt		5724								
	Ile	His	Thr	Val	Leu	Ser	Leu	Asp	Tyr	Glu	Glu	Thr	Ser	Ile	Phe										
	1835								1840								1845								
40	cac	ttt	acc	gtc	caa	gtg	cat	gac	atg	gga	acc	cca	cgt	tta	ttt		5769								
	His	Phe	Thr	Val	Gln	Val	His	Asp	Met	Gly	Thr	Pro	Arg	Leu	Phe										
	1850								1855								1860								
45	gct	gag	tat	gca	gcg	aat	gta	aca	gta	cat	gta	att	gac	att	aat		5814								
	Ala	Glu	Tyr	Ala	Ala	Asn	Val	Thr	Val	His	Val	Ile	Asp	Ile	Asn										
	1865								1870								1875								
50	gac	tgc	ccc	cct	gtg	ttt	gcc	aag	cca	tta	tat	gaa	gca	tct	ctt		5859								
	Asp	Cys	Pro	Pro	Val	Phe	Ala	Lys	Pro	Leu	Tyr	Glu	Ala	Ser	Leu										
	1880								1885								1890								
55	ttg	tta	cca	aca	tac	aaa	gga	gta	aaa	gtc	atc	aca	gta	aat	gct		5904								
	Leu	Leu	Pro	Thr	Tyr	Lys	Gly	Val	Lys	Val	Ile	Thr	Val	Asn	Ala										
	1895								1900								1905								
60	aca	gat	gct	gat	tca	agt	gca	ttc	tca	cag	ttg	att	tac	tcc	atc		5949								
	Thr	Asp	Ala	Asp	Ser	Ser	Ala	Phe	Ser	Gln	Leu	Ile	Tyr	Ser	Ile										
	1910								1915								1920								
65	acc	gaa	ggc	aac	atc	ggg	gag	aag	ttt	tct	atg	gac	tac	aag	act		5994								
	Thr	Glu	Gly	Asn	Ile	Gly	Glu	Lys	Phe	Ser	Met	Asp	Tyr	Lys	Thr										
	1925								1930								1935								
70	ggg	gct	ctc	act	gtc	caa	aac	aca	act	cag	tta	aga	agc	cgc	tac		6039								
	Gly	Ala	Leu	Thr	Val	Gln	Asn	Thr	Thr	Gln	Leu	Arg	Ser	Arg	Tyr										
	1940								1945								1950								
75	gag	cta	acc	gtt	aga	gct	tcc	gat	ggc	aga	ttt	gcc	ggc	ctt	acc		6084								
	Glu	Leu	Thr	Val	Arg	Ala	Ser	Asp	Gly	Arg	Phe	Ala	Gly	Leu	Thr										
	1955								1960								1965								
80	tct	gtc	aaa	att	aat	gtg	aaa	gaa	agc	aaa	gaa	agt	cac	cta	aag		6129								
	Ser	Val	Lys	Ile	Asn	Val	Lys	Glu	Ser	Lys	Glu	Ser	His	Leu	Lys										

	1970	1975	1980	
5	ttt acc cag gat Phe Thr Gln Asp 1985	gtc tac tct gcg gta Val Tyr Ser Ala Val 1990	gtg aaa gag aat tcc acc Val Lys Glu Asn Ser Thr 1995	6174
10	gag gcc gaa aca Glu Ala Glu Thr 2000	tta gct gtc att act Leu Ala Val Ile Thr 2005	gct att ggg agt cca atc Ala Ile Gly Ser Pro Ile 2010	6219
15	aat gag cct ttg Asn Glu Pro Leu 2015	ttt tat cac atc ctc Phe Tyr His Ile Leu 2020	aac cca gat cgc aga ttt Asn Pro Asp Arg Arg Phe 2025	6264
20	aaa ata agc cgc Lys Ile Ser Arg 2030	act tca ggg gtt ctg Thr Ser Gly Val Leu 2035	tca acc act ggc acg ccc Ser Thr Thr Gly Thr Pro 2040	6309
25	ttc gat cgt gag Phe Asp Arg Glu 2045	cag cag gag gcg ttt Gln Gln Glu Ala Phe 2050	gat gtg gtt gta gaa gtg Asp Val Val Val Glu Val 2055	6354
30	ata gag gaa cat Ile Glu Glu His 2060	aag cct tct gca gtg Lys Pro Ser Ala Val 2065	gcc cac gtt gtc gtg aag Ala His Val Val Val Lys 2070	6399
35	gtc att gta gaa Val Ile Val Glu 2075	gac caa aat gat aat Asp Gln Asn Asp Asn 2080	gcg ccg gtg ttt gtc aac Ala Pro Val Phe Val Asn 2085	6444
40	ctt ccc tac tac Leu Pro Tyr Tyr 2090	gcc gtt gtt aaa gtg Ala Val Val Lys Val 2095	gac act gag gtg ggc cat Asp Thr Glu Val Gly His 2100	6489
45	gtc att cgc tat Val Ile Arg Tyr 2105	gtc act gct gta gac Val Thr Ala Val Asp 2110	aga gac agt ggc aga aac Arg Asp Ser Gly Arg Asn 2115	6534
50	ggg gaa gtg cat Gly Glu Val His 2120	tac tac ctc aag gaa Tyr Tyr Leu Lys Glu 2125	cat cat gaa cac ttt caa His His Glu His Phe Gln 2130	6579
55	att gga ccc ttg Ile Gly Pro Leu 2135	ggt gaa att tca ctg Gly Glu Ile Ser Leu 2140	aaa aag caa ttt gag ctt Lys Lys Gln Phe Glu Leu 2145	6624
60	gac acc tta aat Asp Thr Leu Asn 2150	aaa gaa tat ctt gtt Lys Glu Tyr Leu Val 2155	aca gtg gtt gca aaa gat Thr Val Val Ala Lys Asp 2160	6669
	gga ggg aac ccg Gly Gly Asn Pro 2165	gcc ttt tca gcg gaa Ala Phe Ser Ala Glu 2170	gtt atc gtt ccg atc act Val Ile Val Pro Ile Thr 2175	6714
	gtc atg aat aaa Val Met Asn Lys 2180	gcc atg cct gtg ttt Ala Met Pro Val Phe 2185	gaa aaa cct ttc tac agt Glu Lys Pro Phe Tyr Ser 2190	6759
	gca gag att gca Ala Glu Ile Ala 2195	gag agc atc cag gtg Glu Ser Ile Gln Val 2200	cac agc cct gtg gtc cac His Ser Pro Val Val His 2205	6804
	gtg cag gct aac Val Gln Ala Asn	agc ccg gaa ggc ctg Ser Pro Glu Gly Leu	aaa gtg ttc tac agc atc Lys Val Phe Tyr Ser Ile	6849

	2210	2215	2220	
5	aca gac gga gac Thr Asp Gly Asp 2225	cct ttc agc cag ttc Pro Phe Ser Gln Phe 2230	act att aac ttc aat act Thr Ile Asn Phe Asn Thr 2235	6894
10	gga gtt atc aat Gly Val Ile Asn 2240	gtc ata gct cct ctg Val Ile Ala Pro Leu 2245	gac ttt gag gcc cac ccg Asp Phe Glu Ala His Pro 2250	6939
	gca tat aag ctg Ala Tyr Lys Leu 2255	agc ata cgc gca act Ser Ile Arg Ala Thr 2260	gac tcc ttg acg ggc gct Asp Ser Leu Thr Gly Ala 2265	6984
15	cat gct gaa gta His Ala Glu Val 2270	ttt gtg gac atc ata Phe Val Asp Ile Ile 2275	gta gac gac atc aat gat Val Asp Asp Ile Asn Asp 2280	7029
20	aac cct cct gtg Asn Pro Pro Val 2285	ttt gct cag cag tct Phe Ala Gln Gln Ser 2290	tat gcg gtg acc ctg tct Tyr Ala Val Thr Leu Ser 2295	7074
25	gag gca tct gta Glu Ala Ser Val 2300	att gga acg tct gtt Ile Gly Thr Ser Val 2305	ggt caa gtt aga gcc acc Val Gln Val Arg Ala Thr 2310	7119
30	gat tct gat tca Asp Ser Asp Ser 2315	gaa cca aat aga gga Glu Pro Asn Arg Gly 2320	atc tca tac cag atg ttt Ile Ser Tyr Gln Met Phe 2325	7164
	ggg aat cac agc Gly Asn His Ser 2330	aag agt cat gat cat Lys Ser His Asp His 2335	ttt cat gta gac agc agc Phe His Val Asp Ser Ser 2340	7209
35	act ggc ctc atc Thr Gly Leu Ile 2345	tca cta ctc aga acc Ser Leu Leu Arg Thr 2350	ctg gat tac gag cag tcc Leu Asp Tyr Glu Gln Ser 2355	7254
40	cgg cag cac acg Arg Gln His Thr 2360	att ttt gtg agg gca Ile Phe Val Arg Ala 2365	ggt gat ggt ggt atg ccc Val Asp Gly Gly Met Pro 2370	7299
45	acg ctg agc agt Thr Leu Ser Ser 2375	gat gtg att gtc acg Asp Val Ile Val Thr 2380	gtg gac gtt acc gac ctc Val Asp Val Thr Asp Leu 2385	7344
50	aat ggt aat cca Asn Gly Asn Pro 2390	cca ctc ttt gaa caa Pro Leu Phe Glu Gln 2395	cag att tat gaa gcc aga Gln Ile Tyr Glu Ala Arg 2400	7389
	att agc gag cac Ile Ser Glu His 2405	gcc cct cat ggg cat Ala Pro His Gly His 2410	ttc gtg acc tgt gta aaa Phe Val Thr Cys Val Lys 2415	7434
55	gcc tat gat gca Ala Tyr Asp Ala 2420	gac agt tca gac ata Asp Ser Ser Asp Ile 2425	gac aag ttg cag tat tcc Asp Lys Leu Gln Tyr Ser 2430	7479
60	att ctg tct ggc Ile Leu Ser Gly 2435	aat gat cat aaa cat Asn Asp His Lys His 2440	ttt gtc att gac agt gca Phe Val Ile Asp Ser Ala 2445	7524
	aca ggg att atc Thr Gly Ile Ile	acc ctc tca aac ctg Thr Leu Ser Asn Leu	cac cgg cac gcc ctg aag His Arg His Ala Leu Lys	7569

				2450					2455					2460			
5	cca	ttt	tac	agt	ctt	aac	ctg	tca	gtg	tct	gat	gga	gtt	ttt	aga		7614
	Pro	Phe	Tyr	Ser	Leu	Asn	Leu	Ser	Val	Ser	Asp	Gly	Val	Phe	Arg		
				2465					2470					2475			
10	agt	tcc	acc	cag	gtt	cat	gta	act	gta	att	gga	ggc	aat	ttg	cac		7659
	Ser	Ser	Thr	Gln	Val	His	Val	Thr	Val	Ile	Gly	Gly	Asn	Leu	His		
				2480					2485					2490			
15	agt	cct	gct	ttc	ctt	cag	aac	gaa	tat	gaa	gtg	gaa	cta	gct	gaa		7704
	Ser	Pro	Ala	Phe	Leu	Gln	Asn	Glu	Tyr	Glu	Val	Glu	Leu	Ala	Glu		
				2495					2500					2505			
20	aac	gct	ccc	cta	cat	acc	ctg	gtg	atg	gag	gtg	aaa	act	acg	gat		7749
	Asn	Ala	Pro	Leu	His	Thr	Leu	Val	Met	Glu	Val	Lys	Thr	Thr	Asp		
				2510					2515					2520			
25	ggg	gat	tct	ggt	att	tat	ggt	cac	gtt	act	tac	cat	att	gta	aat		7794
	Gly	Asp	Ser	Gly	Ile	Tyr	Gly	His	Val	Thr	Tyr	His	Ile	Val	Asn		
				2525			2530				2535						
30	gac	ttt	gcc	aaa	gac	aga	ttt	tac	ata	aat	gag	aga	gga	cag	ata		7839
	Asp	Phe	Ala	Lys	Asp	Arg	Phe	Tyr	Ile	Asn	Glu	Arg	Gly	Gln	Ile		
				2540					2545					2550			
35	ttt	act	ttg	gaa	aaa	ctt	gat	cga	gaa	acc	ccg	gcg	gag	aaa	gtg		7884
	Phe	Thr	Leu	Glu	Lys	Leu	Asp	Arg	Glu	Thr	Pro	Ala	Glu	Lys	Val		
				2555					2560					2565			
40	atc	tca	gtc	cgt	tta	atg	gct	aag	gat	gct	gga	gga	aaa	gtt	gct		7929
	Ile	Ser	Val	Arg	Leu	Met	Ala	Lys	Asp	Ala	Gly	Gly	Lys	Val	Ala		
				2570					2575					2580			
45	ttc	tgc	acc	gtg	aat	gtc	atc	ctt	aca	gat	gac	aat	gac	aat	gca		7974
	Phe	Cys	Thr	Val	Asn	Val	Ile	Leu	Thr	Asp	Asp	Asn	Asp	Asn	Ala		
				2585					2590					2595			
50	cca	caa	ttt	cga	gca	acc	aaa	tac	gaa	gtg	aat	atc	ggg	tcc	agt		8019
	Pro	Gln	Phe	Arg	Ala	Thr	Lys	Tyr	Glu	Val	Asn	Ile	Gly	Ser	Ser		
				2600					2605					2610			
55	gct	gct	aaa	ggg	act	tca	gtc	gta	aag	tct	gca	agt	gat	gcc	gat		8064
	Ala	Ala	Lys	Gly	Thr	Ser	Val	Val	Lys	Ser	Ala	Ser	Asp	Ala	Asp		
				2615					2620					2625			
60	gag	ggc	tcc	aat	gcc	gac	atc	acc	tat	gcc	att	gaa	gca	gac	tct		8109
	Glu	Gly	Ser	Asn	Ala	Asp	Ile	Thr	Tyr	Ala	Ile	Glu	Ala	Asp	Ser		
				2630					2635					2640			
65	gaa	agt	gta	aaa	gag	aat	ttg	gaa	att	aac	aaa	ctg	tcc	ggc	gta		8154
	Glu	Ser	Val	Lys	Glu	Asn	Leu	Glu	Ile	Asn	Lys	Leu	Ser	Gly	Val		
				2645			2650				2655						
70	atc	act	aca	aag	gag	agc	ctc	att	ggc	ttg	gaa	aat	gaa	ttc	ttc		8199
	Ile	Thr	Thr	Lys	Glu	Ser	Leu	Ile	Gly	Leu	Glu	Asn	Glu	Phe	Phe		
				2660					2665					2670			
75	act	ttc	ttt	gtt	aga	gct	gtg	gat	aat	ggg	tct	cca	tca	aaa	gaa		8244
	Thr	Phe	Phe	Val	Arg	Ala	Val	Asp	Asn	Gly	Ser	Pro	Ser	Lys	Glu		
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	Ser	Val	Val	Leu	Val	Tyr	Val	Lys	Ile	Leu	Pro	Pro	Glu	Met	Gln		

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	Leu	Ser	Thr	Thr	Asp	Ala	Asp	Ser	Glu	Glu	Ile	Asn	Arg	Gln	Val	
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	Thr	Tyr	Phe	Ile	Thr	Gly	Gly	Asp	Pro	Leu	Gly	Gln	Phe	Ala	Val	
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	Glu	Thr	Ile	Gln	Asn	Glu	Trp	Lys	Val	Tyr	Val	Lys	Lys	Pro	Leu	
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	Asp	Arg	Glu	Lys	Arg	Asp	Asn	Tyr	Leu	Leu	Thr	Ile	Thr	Ala	Thr	
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	Asp	Gly	Thr	Phe	Ser	Ser	Lys	Ala	Ile	Val	Glu	Val	Lys	Val	Leu	
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	Asp	Ala	Asn	Asp	Asn	Ser	Pro	Val	Cys	Glu	Lys	Thr	Leu	Tyr	Ser	
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	Asp	Thr	Ile	Pro	Glu	Asp	Val	Leu	Pro	Gly	Lys	Leu	Ile	Met	Gln	
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	Ile	Ser	Ala	Thr	Asp	Ala	Asp	Ile	Arg	Ser	Asn	Ala	Glu	Ile	Thr	
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	Tyr	Thr	Leu	Leu	Gly	Ser	Gly	Ala	Glu	Lys	Phe	Lys	Leu	Asn	Pro	
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	Asp	Thr	Gly	Glu	Leu	Lys	Thr	Ser	Thr	Pro	Leu	Asp	Arg	Glu	Glu	
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	Gln	Ala	Val	Tyr	His	Leu	Leu	Val	Arg	Ala	Thr	Asp	Gly	Gly	Gly	
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	Arg	Phe	Cys	Gln	Ala	Ser	Ile	Val	Val	Thr	Leu	Glu	Asp	Val	Asn	
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	Asp	Asn	Ala	Pro	Glu	Phe	Ser	Ala	Asp	Pro	Tyr	Ala	Ile	Thr	Val	
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	Phe	Glu	Asn	Thr	Glu	Pro	Gly	Thr	Leu	Leu	Thr	Arg	Val	Gln	Ala	
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	Thr	Asp	Ala	Asp	Ala	Gly	Leu	Asn	Arg	Lys	Ile	Leu	Tyr	Ser	Leu	
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	Ile	Ile	Gln	Leu	Glu	Lys	Pro	Leu	Asp	Arg	Glu	Leu	Gln	Ala	Val		
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	Tyr	Thr	Leu	Ser	Leu	Lys	Ala	Val	Asp	Gln	Gly	Leu	Pro	Arg	Arg		
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	Leu	Thr	Ala	Thr	Gly	Thr	Val	Ile	Val	Ser	Val	Leu	Asp	Ile	Asn		
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20	gac	aac	ccc	cct	gtg	ttt	gag	tac	cgt	gaa	tat	ggg	gcc	acc	gtg	9909	
	Asp	Asn	Pro	Pro	Val	Phe	Glu	Tyr	Arg	Glu	Tyr	Gly	Ala	Thr	Val		
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	Ser	Glu	Asp	Ile	Leu	Val	Gly	Thr	Glu	Val	Leu	Gln	Val	Tyr	Ala		
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30	gca	agt	cgg	gat	att	gaa	gca	aat	gca	gaa	atc	acc	tac	tca	ata	9999	
	Ala	Ser	Arg	Asp	Ile	Glu	Ala	Asn	Ala	Glu	Ile	Thr	Tyr	Ser	Ile		
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	Ile	Ser	Gly	Asn	Glu	His	Gly	Lys	Phe	Ser	Ile	Asp	Ser	Lys	Thr		
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	Gly	Ala	Val	Phe	Ile	Ile	Glu	Asn	Leu	Asp	Tyr	Glu	Ser	Ser	His		
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45	gag	tat	tac	cta	aca	gta	gag	gcc	act	gat	gga	ggc	acg	cct	tca	10134	
	Glu	Tyr	Tyr	Leu	Thr	Val	Glu	Ala	Thr	Asp	Gly	Gly	Thr	Pro	Ser		
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50	ctg	agc	gac	gtt	gcc	act	gtg	aac	gtt	aat	gta	aca	gat	atc	aac	10179	
	Leu	Ser	Asp	Val	Ala	Thr	Val	Asn	Val	Asn	Val	Thr	Asp	Ile	Asn		
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55	gat	aat	acc	cct	gtg	ttc	agc	caa	gac	acc	tac	acg	aca	gtc	atc	10224	
	Asp	Asn	Thr	Pro	Val	Phe	Ser	Gln	Asp	Thr	Tyr	Thr	Thr	Val	Ile		
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60	agt	gaa	gat	gcc	gtt	ctt	gag	cag	tct	gtc	atc	acg	gtt	atg	gcc	10269	
	Ser	Glu	Asp	Ala	Val	Leu	Glu	Gln	Ser	Val	Ile	Thr	Val	Met	Ala		
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	Asp	Asp	Ala	Asp	Gly	Pro	Ser	Asn	Ser	His	Ile	His	Tyr	Ser	Ile		
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	Ile	Asp	Gly	Asn	Gln	Gly	Ser	Ser	Phe	Thr	Ile	Asp	Pro	Val	Arg		
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	Gly	Glu	Val	Lys	Val	Thr	Lys	Leu	Leu	Asp	Arg	Glu	Thr	Ile	Ser		
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	Arg	Val	Asn	Thr	Thr	Thr	Val	Asn	Ile	Asp	Val	Ser	Asp	Val	Asn		
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	Asp	Asn	Ala	Pro	Val	Phe	Ser	Arg	Gly	Asn	Tyr	Ser	Val	Ile	Ile		
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	Gln	Glu	Asn	Lys	Pro	Val	Gly	Phe	Ser	Val	Leu	Gln	Leu	Val	Val		
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	Thr	Asp	Glu	Asp	Ser	Ser	His	Asn	Gly	Pro	Pro	Phe	Phe	Phe	Thr		
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25	att	gta	act	gga	aat	gat	gag	aag	gct	ttt	gaa	gtt	aac	ccg	caa	10674	
	Ile	Val	Thr	Gly	Asn	Asp	Glu	Lys	Ala	Phe	Glu	Val	Asn	Pro	Gln		
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30	gga	gtc	ctc	ctg	aca	tca	tct	gcc	atc	aag	agg	aag	gag	aaa	gat	10719	
	Gly	Val	Leu	Leu	Thr	Ser	Ser	Ala	Ile	Lys	Arg	Lys	Glu	Lys	Asp		
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	Leu	Ser	Ser	Leu	Thr	Tyr	Ile	Asp	Ile	Arg	Val	Ile	Glu	Glu	Ser		
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	Ile	Tyr	Pro	Pro	Ala	Ile	Leu	Pro	Leu	Glu	Ile	Phe	Ile	Thr	Ser		
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	Thr	Asp	Gln	Asp	Val	Tyr	Asp	Thr	Leu	Thr	Tyr	Ser	Leu	Asp	Pro		
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	Gln	Met	Asp	Asn	Leu	Phe	Ser	Val	Ser	Ser	Thr	Gly	Gly	Lys	Leu		
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	Ile	Ala	His	Lys	Lys	Leu	Asp	Ile	Gly	Gln	Tyr	Leu	Leu	Asn	Val		
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	Ser	Val	Thr	Asp	Gly	Lys	Phe	Thr	Thr	Val	Ala	Asp	Ile	Thr	Val		
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75	cat	atc	aga	caa	gtc	aca	cag	gag	atg	ttg	aac	cac	acc	atc	gcg	11124	
	His	Ile	Arg	Gln	Val	Thr	Gln	Glu	Met	Leu	Asn	His	Thr	Ile	Ala		
				3635					3640					3645			
80	atc	cgc	ttt	gcc	aac	ctc	act	ccg	gaa	gaa	ttc	gtt	ggg	gac	tac	11169	
	Ile	Arg	Phe	Ala	Asn	Leu	Thr	Pro	Glu	Glu	Phe	Val	Gly	Asp	Tyr		

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	3650	3655	3660	
5	tgg cgc aac ttc Trp Arg Asn Phe 3665	cag cga gct tta Gln Arg Ala Leu 3670	cgg aac atc ctg ggt Arg Asn Ile Leu Gly 3675	gtg agg Val Arg 11214
10	agg aac gac ata Arg Asn Asp Ile 3680	cag att gtt agt ttg Gln Ile Val Ser Leu 3685	cag tcc tct gaa cct Gln Ser Ser Glu Pro 3690	cac His 11259
	cca cat ctg gac Pro His Leu Asp 3695	gtc tta ctt ttt gta Val Leu Leu Phe Val 3700	gag aaa cca ggt agt Glu Lys Pro Gly Ser 3705	gct Ala 11304
15	cag atc tca aca Gln Ile Ser Thr 3710	aaa caa ctt ctg cac Lys Gln Leu Leu His 3715	aag att aac tct tcc Lys Ile Asn Ser Ser 3720	gtg Val 11349
20	act gac att gag Thr Asp Ile Glu 3725	gaa atc att gga gtt Glu Ile Ile Gly Val 3730	agg ata ctg aat gta Arg Ile Leu Asn Val 3735	ttc Phe 11394
25	cag aaa ctc tgc Gln Lys Leu Cys 3740	gcg gga ctg gac tgc Ala Gly Leu Asp Cys 3745	ccc tgg aag ttc tgc Pro Trp Lys Phe Cys 3750	gat Asp 11439
30	gaa aag gtg tct Glu Lys Val Ser 3755	gtg gat gaa agt gtg Val Asp Glu Ser Val 3760	atg tca aca cac agc Met Ser Thr His Ser 3765	aca Thr 11484
	gcc aga ctg agt Ala Arg Leu Ser 3770	ttt gtg act ccc cgc Phe Val Thr Pro Arg 3775	cac cac agg gca gcg His His Arg Ala Ala 3780	gtg Val 11529
35	tgt ctc tgc aaa Cys Leu Cys Lys 3785	gag gga agg tgc cca Glu Gly Arg Cys Pro 3790	cct gtc cac cat ggc Pro Val His His Gly 3795	tgt Cys 11574
40	gaa gat gat ccg Glu Asp Asp Pro 3800	tgc cct gag gga tcc Cys Pro Glu Gly Ser 3805	gaa tgt gtg tct gat Glu Cys Val Ser Asp 3810	ccc Pro 11619
45	tgg gag gag aaa Trp Glu Glu Lys 3815	cac acc tgt gtc tgt His Thr Cys Val Cys 3820	ccc agc ggc agg ttt Pro Ser Gly Arg Phe 3825	ggt Gly 11664
50	cag tgc cca ggg Gln Cys Pro Gly 3830	agt tca tct atg aca Ser Ser Ser Met Thr 3835	ctg act gga aac agc Leu Thr Gly Asn Ser 3840	tac Tyr 11709
	gtg aaa tac cgt Val Lys Tyr Arg 3845	ctg acg gaa aat gaa Leu Thr Glu Asn Glu 3850	aac aaa tta gag atg Asn Lys Leu Glu Met 3855	aaa Lys 11754
55	ctg acc atg agg Leu Thr Met Arg 3860	ctc aga aca tat tcc Leu Arg Thr Tyr Ser 3865	acg cat gcg gtt gtc Thr His Ala Val Val 3870	atg Met 11799
60	tat gct cga gga Tyr Ala Arg Gly 3875	act gac tat agc atc Thr Asp Tyr Ser Ile 3880	ttg gag att cat cat Leu Glu Ile His His 3885	gga Gly 11844
	agg ctg cag tac Arg Leu Gln Tyr 3885	aag ttt gac tgt gga Lys Phe Asp Cys Gly 3890	agt ggc cct gga att Ser Gly Pro Gly Ile 3895	gtc Val 11889

	3890	3895	3900	
5	tct gtt cag agc Ser Val Gln Ser 3905	att cag gtc aat gat Ile Gln Val Asn Asp 3910	ggg cag tgg cac gca gtg Gly Gln Trp His Ala Val 3915	11934
10	gcc ctg gaa gtg Ala Leu Glu Val 3920	aat gga aac tat gct Asn Gly Asn Tyr Ala 3925	cgc ttg gtt cta gac caa Arg Leu Val Leu Asp 3930	11979
	gtt cat act gca Val His Thr Ala 3935	tcg ggc aca gcc cca Ser Gly Thr Ala Pro 3940	ggg act ctg aaa acc ctg Gly Thr Leu Lys Thr 3945	12024
15	aac ctg gat aac Asn Leu Asp Asn 3950	tat gtg ttt ttt ggt Tyr Val Phe Phe Gly 3955	ggc cac atc cgt cag cag Gly His Ile Arg Gln Gln 3960	12069
20	gga aca agg cat Gly Thr Arg His 3965	gga aga agt cct caa Gly Arg Ser Pro Gln 3970	gtt ggt aat ggt ttc agg Val Gly Asn Gly Phe Arg 3975	12114
25	ggt tgt atg gac Gly Cys Met Asp 3980	tcc att tat ttg aat Ser Ile Tyr Leu Asn 3985	ggg cag gag ctg cct tta Gly Gln Glu Leu Pro Leu 3990	12159
30	aac agc aaa ccc Asn Ser Lys Pro 3995	aga agc tat gca cac Arg Ser Tyr Ala His 4000	atc gaa gag tcg gtg gat Ile Glu Glu Ser Val Asp 4005	12204
	gta tct cca ggc Val Ser Pro Gly 4010	tgc ttc ctg acg gcc Cys Phe Leu Thr Ala 4015	acg gaa gac tgc gcc agc Thr Glu Asp Cys Ala Ser 4020	12249
35	aac cct tgc cag Asn Pro Cys Gln 4025	aat gga ggc gtt tgc Asn Gly Gly Val Cys 4030	aat ccg tca cct gct gga Asn Pro Ser Pro Ala Gly 4035	12294
40	ggt tat tac tgc Gly Tyr Tyr Cys 4040	aaa tgc agt gcc ttg Lys Cys Ser Ala Leu 4045	tac ata ggg acc cac tgt Tyr Ile Gly Thr His Cys 4050	12339
45	gag ata agc gtc Glu Ile Ser Val 4055	aat ccg tgt tcc tcc Asn Pro Cys Ser Ser 4060	aac cca tgc ctg tat ggg Asn Pro Cys Leu Tyr Gly 4065	12384
50	ggc acg tgt gtt Gly Thr Cys Val 4070	gtc gac aac gga ggc Val Asp Asn Gly Gly 4075	ttt gtt tgc cag tgt aga Phe Val Cys Gln Cys Arg 4080	12429
	gga tta tat act Gly Leu Tyr Thr 4085	ggt cag agg tgt cag Gly Gln Arg Cys Gln 4090	ctt agt cca tac tgc aaa Leu Ser Pro Tyr Cys Lys 4095	12474
55	gat gaa ccc tgt Asp Glu Pro Cys 4100	aag aat ggc gga aca Lys Asn Gly Gly Thr 4105	tgc ttt gac agt ttg gat Cys Phe Asp Ser Leu Asp 4110	12519
60	ggc gcc gtt tgt Gly Ala Val Cys 4115	cag tgt gat tcg ggt Gln Cys Asp Ser Gly 4120	ttt agg gga gaa agg tgt Phe Arg Gly Glu Arg Cys 4125	12564
	cag agt gat atc Gln Ser Asp Ile	gac gag tgc tct gga Asp Glu Cys Ser Gly	aac cct tgc ctg cac ggg Asn Pro Cys Leu His Gly	12609

	4130	4135	4140	
5	gcc ctc tgt gag Ala Leu Cys 4145	aac acg cac ggc tcc Asn Thr His Gly Ser 4150	tat cac tgc aac tgc agc Tyr His Cys Asn Cys Ser 4155	12654
10	cac gag tac agg His Glu Tyr Arg 4160	gga cgt cac tgc gag Gly Arg His Cys Glu 4165	gat gct gcg ccc aac cag Asp Ala Ala Pro Asn Gln 4170	12699
15	tat gtg tcc acg Tyr Val Ser Thr 4175	cgc tgg aac att ggg Pro Trp Asn Ile Gly 4180	ttg gcg gaa gga att gga Leu Ala Glu Gly Ile Gly 4185	12744
20	atc gtt gtg ttt Ile Val Val Phe 4190	gtt gca ggg ata ttt Val Ala Gly Ile Phe 4195	tta ctg gtg gtg gtg ttt Leu Leu Val Val Val Phe 4200	12789
25	gtt ctc tgc cgt Val Leu Cys Arg 4205	aag atg att agt cgg Lys Met Ile Ser Arg 4210	aaa aag aag cat cag gct Lys Lys Lys His Gln Ala 4215	12834
30	gaa cct aaa gac Glu Pro Lys Asp 4220	aag cac ctg gga ccc Lys His Leu Gly Pro 4225	gct acg gct ttc ttg caa Ala Thr Ala Phe Leu Gln 4230	12879
35	aga ccg tat ttt Arg Pro Tyr Phe 4235	gat tcc aag cta aat Asp Ser Lys Leu Asn 4240	aag aac att tac tca gac Lys Asn Ile Tyr Ser Asp 4245	12924
40	ata cca ccc cag Ile Pro Pro Gln 4250	gtg cct gtc cgg cct Val Pro Val Arg Pro 4255	att tcc tac acc ccg agt Ile Ser Tyr Thr Pro Ser 4260	12969
45	att cca agt gac Ile Pro Ser Asp 4265	tca aga aac aat ctg Ser Arg Asn Asn Leu 4270	gac cga aat tcc ttc gaa Asp Arg Asn Ser Phe Glu 4275	13014
50	gga tct gct atc Gly Ser Ala Ile 4280	cca gag cat ccc gaa Pro Glu His Pro Glu 4285	ttc agc act ttt aac ccc Phe Ser Thr Phe Asn Pro 4290	13059
55	gag tct gtg cac Glu Ser Val His 4295	ggg cac cga aaa gca Gly His Arg Lys Ala 4300	gtg gcg gtc tgc agc gtg Val Ala Val Cys Ser Val 4305	13104
60	gcg cca aac ctg Ala Pro Asn Leu 4310	cct ccc cca ccc cct Pro Pro Pro Pro Pro 4315	tca aac tcc cct tct gac Ser Asn Ser Pro Ser Asp 4320	13149
	agc gac tcc atc Ser Asp Ser Ile 4325	cag aag cct agc tgg Gln Lys Pro Ser Trp 4330	gac ttt gac tat gac aca Asp Phe Asp Tyr Asp Thr 4335	13194
	aaa gtg gtg gat Lys Val Val Asp 4340	ctt gat ccc tgt ctt Leu Asp Pro Cys Leu 4345	tcc aag aag cct cta gag Ser Lys Lys Pro Leu Glu 4350	13239
	gaa aag cct tcc Glu Lys Pro Ser 4355	cag cca tac agt gcc Gln Pro Tyr Ser Ala 4360	cgg gaa agc ctg tct gaa Arg Glu Ser Leu Ser Glu 4365	13284
	gtg cag tcc ctg Val Gln Ser Leu	agc tcc ttc cag tcc Ser Ser Phe Gln Ser	gaa tcg tgc gat gac aat Glu Ser Cys Asp Asp Asn	13329

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	4370	4375	4380	
5	gaa tct ttg gct gct cct gac ctc agc aaa cca aga ggg tat cac Glu Ser Leu Ala Ala Pro Asp Leu Ser Lys Pro Arg Gly Tyr His 4385 4390 4395	13374		
10	tgg gat aca tca gat tgg atg cca agc gtt cct ctg ccg gac ata Trp Asp Thr Ser Asp Trp Met Pro Ser Val Pro Leu Pro Asp Ile 4400 4405 4410	13419		
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149

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 40 His Phe Gly Asp Ser Asp Gly Ser Gln Arg Leu Glu Gln Thr Pro Leu
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 45 Gln Phe Thr His Leu Glu Tyr Asn Val Thr Val Gln Glu Asn Ser Ala
 35 40 45
 Ala Lys Thr Tyr Val Gly His Pro Val Lys Met Gly Val Tyr Ile Thr
 50 55 60
 50 His Pro Ala Trp Glu Val Arg Tyr Lys Ile Val Ser Gly Asp Ser Glu
 65 70 75 80
 55 Asn Leu Phe Lys Ala Glu Glu Tyr Ile Leu Gly Asp Phe Cys Phe Leu
 85 90 95
 60 Arg Ile Arg Thr Lys Gly Gly Asn Thr Ala Ile Leu Asn Arg Glu Val
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 Lys Asp His Tyr Thr Leu Ile Val Lys Ala Leu Glu Lys Asn Thr Asn
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150

5 Val Glu Ala Arg Thr Lys Val Arg Val Gln Val Leu Asp Thr Asn Asp
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 10 Asn Thr Ala Ile Arg Thr Ser Ile Ala Arg Val Ser Ala Thr Asp Ala
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 15 Asp Ile Gly Thr Asn Gly Glu Phe Tyr Tyr Ser Phe Lys Asp Arg Thr
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 20 Asp Met Phe Ala Ile His Pro Thr Ser Gly Val Ile Val Leu Thr Gly
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 25 Arg Leu Asp Tyr Leu Glu Thr Lys Leu Tyr Glu Met Glu Ile Leu Ala
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 30 Ala Lys Leu Thr Val His Ile Glu Gln Ala Asn Glu Cys Ala Pro Val
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 35 Ile Thr Ala Val Thr Leu Ser Pro Ser Glu Leu Asp Arg Asp Pro Ala
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 40 Tyr Ala Ile Val Thr Val Asp Asp Cys Asp Gln Gly Ala Asn Gly Asp
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 45 Ile Ala Ser Leu Ser Ile Val Ala Gly Asp Leu Leu Gln Gln Phe Arg
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 50 Gly Asp Ile Asp Trp Asp Ser His Pro Phe Gly Tyr Asn Leu Thr Leu
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5 Pro Val Val Met Val Lys Ala Ile Pro Ala Tyr Ser His Leu Arg Tyr
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 10 Thr Gly Leu Ile Ser Ile Leu Glu Pro Val Lys Arg Gln Gln Ala Ala
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 15 His Phe Glu Leu Glu Val Thr Thr Ser Asp Arg Lys Ala Ser Thr Lys
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 20 Val Leu Val Lys Val Leu Gly Ala Asn Ser Asn Pro Pro Glu Phe Thr
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 25 Gln Thr Ala Tyr Lys Ala Ala Phe Asp Glu Asn Val Pro Ile Gly Thr
 465 470 475 480
 Thr Ile Met Ser Leu Ser Ala Val Asp Pro Asp Glu Gly Glu Asn Gly
 485 490 495
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 50 Thr Ile Pro Arg Asp Leu Gly Val Gly Glu Gln Ile Thr Thr Val Ser
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 625 630 635 640

5 His Ser Leu Arg Ile Thr Ala Thr Asp Gly Glu Asn Phe Ala Thr Pro
 645 650 655
 Leu Tyr Ile Asn Ile Thr Val Ala Ala Ser His Lys Leu Val Asn Leu
 660 665 670
 10 Gln Cys Glu Glu Thr Gly Val Ala Lys Met Leu Ala Glu Lys Leu Leu
 675 680 685
 15 Gln Ala Asn Lys Leu His Asn Gln Gly Glu Val Glu Asp Ile Phe Phe
 690 695 700
 20 Asp Ser His Ser Val Asn Ala His Ile Pro Gln Phe Arg Ser Thr Leu
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 60 Thr Asp Thr Phe Ser Ile Asp Ser Val Thr Gly Val Val Asn Ile Ala
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 900 905 910
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 Val Lys Val Ser Leu Glu Asp Val Asn Asp Asn Pro Pro Thr Phe Ile
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 10
 Pro Pro Asn Tyr Arg Val Lys Val Arg Glu Asp Leu Pro Glu Gly Thr
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 Val Ile Met Trp Leu Glu Ala His Asp Pro Asp Leu Gly Gln Ser Gly
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 Asp Lys Leu Ser Gly Ala Val Arg Ile Val Gln Gln Leu Asp Phe Glu
 980 985 990
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 Lys Lys Gln Val Tyr Asn Leu Thr Val Arg Ala Lys Asp Lys Gly Lys
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 Pro Val Ser Leu Ser Ser Thr Cys Tyr Val Glu Val Glu Val Val
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 Gln Gly Val Val Pro Leu Ser Ser Phe Ile Glu Ile Tyr Ile Glu
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5	Tyr	Tyr	Pro	Glu	Ile	Met	Glu	Asn	Ser	Pro	Lys	Asp	Val	Ser	Val
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10	Val	Gln	Ile	Glu	Ala	Phe	Asp	Pro	Asp	Ser	Ser	Ser	Asn	Asp	Lys
	1160						1165					1170			
15	Leu	Met	Tyr	Lys	Ile	Thr	Ser	Gly	Asn	Pro	Gln	Gly	Phe	Phe	Ser
	1175						1180					1185			
20	Ile	His	Pro	Lys	Thr	Gly	Leu	Ile	Thr	Thr	Thr	Ser	Arg	Lys	Leu
	1190						1195					1200			
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	1205						1210					1215			
30	Asp	Asn	Gly	Ser	Pro	Pro	Lys	Ser	Thr	Ile	Ala	Arg	Val	Ile	Val
	1220						1225					1230			
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	1235						1240					1245			
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	1250						1255					1260			
45	Arg	Asn	Ala	Arg	Arg	Glu	Pro	Leu	Tyr	Arg	Val	Ile	Ala	Thr	Asp
	1265						1270					1275			
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	1280						1285					1290			
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	1295						1300					1305			
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	1310						1315					1320			
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	1370						1375					1380			

5	Pro 1385	Pro 1400	Gly 1415	Ile 1430	Pro 1445	Leu 1460	Trp 1480	Phe 1505	Asp 1520	Ile 1535	Thr 1550	Gly 1565	Gly 1580	Asn 1600	Tyr 1615
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 20 Ser Ile Gly Ser Phe Val Gly Met Val Thr Ala His Ser Gln Ser
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 35 Asn Met Ala Gly Leu Ser Thr Asn Thr Thr Val Leu Val His Leu
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 40 Gln Asp Glu Asn Asp Asn Ala Pro Val Phe Met Gln Ala Glu Tyr
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 45 Thr Gly Leu Ile Ser Glu Ser Ala Ser Ile Asn Ser Val Val Leu
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5	Tyr 1865	Ala	Ala	Asn	Val	Thr	Val 1870	His	Val	Ile	Asp	Ile 1875	Asn	Asp	Cys
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15	Pro 1895	Thr	Tyr	Lys	Gly	Val	Lys 1900	Val	Ile	Thr	Val	Asn 1905	Ala	Thr	Asp
20	Ala 1910	Asp	Ser	Ser	Ala	Phe	Ser 1915	Gln	Leu	Ile	Tyr	Ser 1920	Ile	Thr	Glu
25	Gly 1925	Asn	Ile	Gly	Glu	Lys	Phe 1930	Ser	Met	Asp	Tyr	Lys 1935	Thr	Gly	Ala
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60	Ser 2030	Arg	Thr	Ser	Gly	Val	Leu 2035	Ser	Thr	Thr	Gly	Thr 2040	Pro	Phe	Asp
65	Arg 2045	Glu	Gln	Gln	Glu	Ala	Phe 2050	Asp	Val	Val	Val	Glu 2055	Val	Ile	Glu
70	Glu 2060	His	Lys	Pro	Ser	Ala	Val 2065	Ala	His	Val	Val	Val 2070	Lys	Val	Ile
75	Val 2075	Glu	Asp	Gln	Asn	Asp	Asn 2080	Ala	Pro	Val	Phe	Val 2085	Asn	Leu	Pro
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5 Arg Tyr Val Thr Ala Val Asp Arg Asp Ser Gly Arg Asn Gly Glu
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 10 Pro Leu Gly Glu Ile Ser Leu Lys Lys Gln Phe Glu Leu Asp Thr
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 15 Leu Asn Lys Glu Tyr Leu Val Thr Val Val Ala Lys Asp Gly Gly
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5 Leu Ile Ser Leu Leu Arg Thr Leu Asp Tyr Glu Gln Ser Arg Gln
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 2390 2400
 20 Glu His Ala Pro His Gly His Phe Val Thr Cys Val Lys Ala Tyr
 2405 2415
 25 Asp Ala Asp Ser Ser Asp Ile Asp Lys Leu Gln Tyr Ser Ile Leu
 2420 2430
 Ser Gly Asn Asp His Lys His Phe Val Ile Asp Ser Ala Thr Gly
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 Pro Val Phe Glu Ser Ser Pro Tyr Glu Ala Phe Ile Val Glu Asn
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 cactcaggag catggggaca ccctcctttc atcttggtgt cctcttcaac atoctagcac 180
 atgggcctga acgtaggagt ggctccatat gtgtggaatt ccaatgccta ggttttctgc 240

180

cttgctagaa aacaggcttt ttaagggttag gacaaaacta taagaaacat ttgtattgtt 300
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 gcctgaatcc tgggtgctggg gtttactgga gtgggcttgg tgcttggaat ctgtggtgaa 180
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 cttaaactct tactatttct taaacatatt tcttaacta aggatattta gatattgtct 180
 tccatgtaca actttaaatt cggttcagaa accccaggca aggggtattct gtgtgtccta 240
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 gncaattgat tcggagtatt ttctttgtaa gatgagtctg ggccggcgga actgggaagc 360
 35 ctctggcaga gagaaggcac aggagggtgg gggatggaaa cnnatccaa ngatgagctc 420
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 agtggaatgg aaacaggaac aggacatttc tgaagggtat tatccactct tggctaagggt 240
 10 gaagtagcag ctnattaggg tatggggaga cccagagcan cctcttttct ttagcaaac 300
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 25 caaagtgagc aaattgactt gctcaaacc aaacagctag aaaatgataa ggctgccatg 180
 caatcctggg cttattttat ccctaagcct gcattccatt tcctacaaat aaagagatag 240
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 gaggattttg aagatccaat gtcttttatc aaacatctca ccagtaaatt aagaagatct 180
 10 aaatcttgcc acacacacac acacacacac acacacacac acccttatgc tttaaaatct 240
 atctttccaa tgnnggttccc actgcacatc ttgaggggat cttctctgga tttccacata 300
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 ctattttcac atccaattca ggactaatct ctgctaaagt accttctntt ctcacottac 180
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